



Critchett, Clive Ian (2017) Proportion and the esoteric: Frederick Delius and his music. Doctoral thesis (PhD), The Royal Northern College of Music in collaboration with Manchester Metropolitan University.

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Proportion and the Esoteric:
Frederick Delius
& His Music

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Ph.D.

2017

Proportion and the Esoteric:
Frederick Delius
& His Music

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A thesis submitted in partial fulfilment of the requirements
of the
Manchester Metropolitan University for the degree of
Doctor of Philosophy

The Royal Northern College of Music, Manchester
in Co-operation with the
Manchester Metropolitan University

2017

Abstract

An analysis of Frederick Delius' earliest compositions showed that he had been intensely involved, especially between 1887 – 1892, in exploring various proportioning strategies in his music. Key to this was his development of three- or four-part configurations or 'patterns'. These were typically constructed so that the two outer sections of a pattern, although separate, were in strict proportion, most frequently in Golden Section (GS) proportion. Patterns that used GS were distinguished from the more familiar 'Type I' GS, as belonging to a 'Type II' GS praxis. Analyses of Delius' later works confirmed that both Types I and II GS proportioning continued to play a critical role in structuring his mature works, often leading in larger compositions to elaborate descending hierarchies of GS (less frequently involving 2: 1 or 1: 1) proportioning. These hierarchies tend to show a top-down, stepwise stratification, large-scale patterns usually being placed at their 'top' – often dominating and spanning entire works or movements. Type I GS and other proportioning strategies are then placed at lower levels.

Investigations into possible French sources of Delius' techniques showed that Debussy had been experimenting initially (from 1887) with a single large-scale GS structuring technique (termed here 'GS partitioning') infrequent in Delius. Comparison of 26 components of Delius' proportioning practice with Debussy's confirmed however that wherever a technique was shared, it was Delius who had preceded Debussy's usage, often by a period of several years. Among French artists, Paul Sérusier in 1889 signalled a more complex GS proportioning than hitherto, whilst two of his associates, Charles Filiger and Jan Verkade, also used GS from the early 1890s, the latter showing only a brief interest.

Turning to Germany, Emil Naumann, a pupil of Felix Mendelssohn, had been the first to write on GS techniques in music, intimating the use of one technique later taken up by Delius. Several components of Delius proportioning were eventually traced back to Mendelssohn, suggesting both that GS proportioning praxes in 19th century music were being developed in Germany long before the writings of Adolf Zeising or Gustav Fechner, and that Delius had gained his own techniques whilst studying in Leipzig rather than later during his Paris years.

Studies in Delius' social milieu during the 1880s and 1890s suggested that both Delius and his closest friends were pursuing aspects of esoteric knowledge influential on his early works. Thus the operas *Irmelin* and the *Magic Fountain* were each laid out as comprehensive alchemical allegories, and confirm that Delius had been strongly attracted to alchemical lore and symbolism sometime before he first met Strindberg. Although no evidence was found of any interest in GS in 19th century esoteric or occult movements, GS and esoterism tended to exist alongside each other, especially in Paris, where they occasionally interacted, as in Delius' first opera *Irmelin* where GS was used as a symbol of the alchemist's gold. An examination of Delius' vocal texts indicated that they display a strong proclivity towards *ascensionism* – the impulse to soar upwards. This phenomenon is discussed alongside others in connection with the idea of exceptional or mystical experience having played an intimate role in Delius' personal life and character.

* * * * *

Acknowledgements

Thanks are due to Carola Boehm and Dr Martin Blain of the Department of Contemporary Arts, Manchester Metropolitan University and to the Directors (current and former) and staff of the Research Section at the Royal Northern College of Music for their support in the preparation of this thesis. Special acknowledgement and thanks are made to my two supervisors at the RNCM, Dr Lois Fitch and Professor Douglas Jarman, for their long-term involvement and enthusiasm, and for their careful suggestions regarding the presentation of this thesis.

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Chapter 1: Introduction

The outward circumstances of Frederick Delius' life are well-known and have since long become ingrained in the *mythoi* of the British musical and general English-speaking cultures.¹ Less familiar, both perhaps to the general musician as well as to the public at large is Delius' *music*, or rather an awareness of the *full ambit* of his music, as betokened in general by the operas and choral pieces, or by such intriguing early works as the melodrama on Ibsen's poem *Paa Vidderne* or Delius' first opera *Irmelin*. The reason for this unfamiliarity has been attributed to various factors which include both the historical (such as the wide dissemination of modernist ideas and music which for long deflected interest away from the late and neo-romantics) as well as those pertaining to Delius himself (such as the ambivalence of his national status and affiliations). A persistent observation on Delius the musician is his supposed 'lack of form' a belief which has become deep-rooted in popular writings:

And indeed, Delius' occasional inability to endow his longer works with the organizational impetus that guides the ear reminds us that form is necessary. Art is form (Life is content.) Why exposition, development, recapitulation? Here's why: because without form, all music would sound like Delius.²

Deryck Cooke³ and more recently Daniel Grimley have also referred to this perception of 'lack of form' in Delius' music as having apparently also infiltrated academic circles, the latter writing:⁴

1. Frederick Delius, was born on 29 January 1862 in Bradford, Yorkshire, where, the son of German immigrants, he was christened *Fritz Theodor Albert Delius*. He died in Grez-sur-Loing outside of Paris on 10 June 1934, where he had lived since c. 1897. The main periods of his adult biography, as referred to in the following chapters are:

Florida and Virginia, USA 1884–1886: Delius set sail for New York from Liverpool in March 1884 and arrived in Florida some 18 days later. By September 1885 Delius had moved to Danville, Virginia which he had left by June 1886 to return to Europe.

Leipzig, Germany 1886–1888: arrived in Leipzig in August 1886 to study at the Leipzig Conservatoire. He remained there until the Spring of 1888.

Paris, France: in Paris from early May 1888 until about 1897 when he moved to Grez-sur-Loing.

The phrase *early Paris works* signifies those works written between May 1888 up until the conclusion of the opera *Irmelin* (c. 1892). The phrase *later Paris works* designate those that post-date *Irmelin*, and here include the tone poem *Paris* completed in 1899.

Grez-sur-Loing: c. 1897–1934. The *late works* refers to those compositions completed or composed between c. 1922 and 1934, during which time (and by about 1924) he became fully quadriplegic and blinded through a syphilitic infection. Assistance in setting down his compositions during this period was given by his wife Jelka, and, from October 1928, by Eric Fenby.

2. Mordden, Ethan (1980) *A guide to orchestral music: the handbook for non-musicians*. New York: Oxford University Press p. 322.

3. See Cooke, Deryck 1962a and 1962b and Chapter 8 following.

4. Daniel Grimley, (Oxford University) is the principal investigator of the current [2015] AHRC project: *Delius, Modernism. and the Sound of Place*.

Critical appreciation of his [Delius'] achievement, however, has been stubbornly unforthcoming in the wider academic field: [...] analytical accounts of Delius's music remain at a preliminary stage, especially when placed alongside coverage for other comparably significant musical figures. [...] The critical reception of some of Delius's most popular works, such as 'On Hearing the First Cuckoo in Spring', has often inadvertently perpetuated the idea of [a] rhapsodist whose apparent lack of strong formal structure and rich late romantic harmonic syntax seemingly place him at odds with more supposedly progressive trends in continental European music.[...] critical consideration of his major works, however, swiftly suggests a more dynamic and challenging musical idiom, and a keen sense of musical architecture.⁵

A further impediment to a fuller understanding of Delius is the wealth of information, often conflicting, surrounding his personality: this problem is compounded by Delius' own tendency towards a certain mischievousness and evasiveness, and of his adopting a teasing and provocative stance in conversation, often posing as devil's advocate.⁶ A critical appraisal of Delius the man, seen in a broader context, is therefore urgently needed.

The intention of this present thesis is to take up elements of the above two aspects of research *viz.* the problem of 'form' in Delius together with facets of his social *milieux*, especially as potentially reflecting or impinging on, or otherwise indicating, his own privately held beliefs. Regarding 'Delius and form' this study will limit itself to questions of *proportion* and *proportioning* in Delius' compositions: that is, the proportion of an *individual section or part* of a work or movement as *related to the whole*, as well as proportional inter-relationships existing *between different parts or sections within a work or individual movement*. Such proportional analysis may help uncover some essential and significant components of Delius' overall compositional technique (for example) revealing any overall 'framework' or (to a certain extent) the 'mapping out' of events and their proportional interrelationships within a work. Proportional analysis cannot supplant however, other important analytical techniques such as those which focus on, for instance, harmonic or expressive language, and which must be also be separately carried out to complement results from proportional analysis.

Concerning Delius' biographical details, the topics of *esoterism*⁷ and *mysticism*⁸ are addressed

5. Grimley, Daniel] (2015) *Delius, Modernism, and the Sound of Place*. Research Councils UK at <http://gtr.rcuk.ac.uk/projects?ref=AH/M00659X/1> – accessed 24.10. 2015.

6. For evidence of Delius' mischievousness in conversation *see* for instance Percy Grainger in Heseltine 1952 pp 174 – 175, and for his humorous, provocative style when writing, (for example, on the English and their musical tastes), *see* his letters to Ethel Smyth in Smyth pp 25 –27 and pp 28 – 29. Gerald Cumberland wrote regarding Delius' personality: 'A pale man, ascetic, monkish; a man with a waspish wit; a man who allows his wit to run away with him so far that he is tempted to express opinions he does not really hold.' Cumberland 1919 p. 251.

7. The terms *esoteric*, *esoterism* and *esotericism* are defined in the Appendix. No historical account of *esotericism* or occultist groups in 19th-century Europe or late 19th-century France is attempted here as much of this material has

as well as a third conspicuous component of Delius' mental make-up *i.e.* that of *ascensionism*.⁹

The subject of 'traditional' form in Delius has been approached in several doctoral theses, largely from the USA. Details are included in Huismann pp 237 – 242. Other important theses include those of Jérôme Rossi (Rossi 2005) and Melvin Rea (Rea 1998). Dercyk Cooke's analysis of the *Violin Concerto* has proved of critical importance in the perception of alternative (non-traditional) forms occurring in Delius (Cooke 1962a and 1962b). Similarly, Jérôme Rossi in his above thesis, introduces a type of analysis of *In a Summer Garden* based on the process of *relaxation* and *tension*, where passages of music successively undergo an initial, progressive increase in energy and complexity (termed *arsis*), and reach a climax at the *accent* before entering a phase of relaxation (termed *thesis* – Rossi 2005 pp 262 – 290) – Rossi provides a summary in English of his thesis in Rossi 2010). This type of dynamic configuration appears similar or parallel to what is termed the *ascent formation* in succeeding chapters of the present thesis. The German musicologist Peter Revers uses a comparable technique to Rossi's in analysing sections of Delius' tone poem *Paris* (Revers pp 130 – 138). It may surprise many, however, that Delius' works can also be shown to be largely based on techniques of precise proportioning, notably by use of the *Golden Section* (GS). Thus, such substantial works as the opera *Irmelin* or *A Mass of Life* can be seen as owing their overall form and dramatic shape to extensive networks of GS proportions often subsumed under a single GS 'pattern' encompassing an entire work. Investigations of form in Delius should therefore begin and proceed from an entirely new and different vantage point from that of Delius' predecessors and of most of his contemporaries.

There follows below a short history on the role of the Golden Section in contributing to musical form in the second half of the 19th –century. This should prove germane to the content and argument of the succeeding chapters. A brief résumé of selected writings on Delius' personality is then given. Thirdly, and as a preamble and an introduction to succeeding chapters, Daniel Grimley's challenge and comments on *On Hearing the First Cuckoo in Spring* are taken up by way of presenting a brief proportional analysis of this piece together with its companion *Summer Night of the River*.

* * * * *

proved of little direct relevance to the topic of Delius himself.

8. See Chapter 14.

9. The term *ascensionism* is defined in Chapter 13.

Although it is thought to have originated in early 19th –century Germany, the exact origin of the term *The Golden Section* (Ger: *der goldene Schnitt*; Fr: *la Section d'or*) remains uncertain. The widespread attribution of the term's source to Martin Ohm's 1835 edition of his *Die reine Elementar-Mathematik*¹⁰ is incorrect, for it had previously appeared both in Ephraim Unger's *Das Berechnen, Verwandeln und Theilen der Figuren* of 1828 and Georg Johann Winkler's *Lehrbuch der Geometrie* of 1824.¹¹ However, even in those volumes, the authors imply that the appellation was already in general use and was not of their own devising.¹² Whatever its precise origin, the designation *der goldene Schnitt* can be said to mark, in early 19th –century Germany, a new beginning and a new level of interest and application of a mathematical discovery set down originally by the ancient Greeks.¹³ Although several sources imply that the Golden Section was 'in the air' and had been (consciously) employed in artworks in the first half of the 19th –century,¹⁴ it was Adolf Zeising's *Neue Lehre von den Proportionen des menschlichen Körpers* of 1854¹⁵ and his notion that GS was an all-pervading presence, modelling aspects of both the physical and natural worlds, which aroused a far-reaching interest in the proportion. Similarly, Gustav Fechner's experiments at the University of Leipzig on a purported aesthetic preference for GS over other proportions stimulated an interest extending far into the following century. However, neither Zeising nor Fechner ascribed any role to the Golden Section in determining musical form or proportion. That task

10. See Herz-Fischler (1998) pp 167 – 170 and Dénes Nagy p. 74 *et seq.* Nagy also cites an additional earlier source for the term *viz.* on p. 127 of Ferdinand Wolff's *Lehrbuch der Geometrie* published in Berlin in 1833 (the designation also appears on p. 160 of the 1830 edition of the same book).

11. See Unger 1828 and Winkler 1824. Ephraim Salomon Unger (1789 –1870) was a German philosopher and mathematician based for much of his life in Erfurt, S. Germany. (See Pick 1895). Georg Johann Winkler (1776 – 1854), published widely in mathematics, which he taught outside Vienna at Purkersdorf and at Mariabrunn (information from: <https://de.wikipedia.org> accessed 20th September 2015).

12. *Da nun dieses die unter dem Namen der goldene Schnitt bekannte Aufgabe ist, welche im 11ten Satze des zweiten Buchs der Elemente von Euklid gelöst wird, so geht hieraus hervor, dass diese Aufgabe bloss einen besondern Fall der ober gelösten Aufgabe bildet.* [Now since this, which is (well)-known as the 'Problem of the Golden Section' and which is the 11th proposition of the second book of Euclid, it is clear that this solution merely constitutes a special case of the above problem] – (Unger p. 204).

....oder wie man diese Theilung (die in den ältern geometrischen Schriften der goldene Schnitt genannt ist) ... [this division (which in old/ancient texts on geometry is called the Golden Section)] (Winkler 1824 p. 80). That the term *der goldene Schnitt* did not appear at the equivalent position (pp 85 – 86) in the first edition of Winkler's *Lehrbuch* (1814), suggests that it may have first come into general use (or have been coined) at some point between 1814 and 1824.

13. For a detailed study of the history and terminology of the Golden Section see Herz-Fischler 1998.

14. Felix Mendelssohn (1809 – 1847) and Frédéric Chopin (1810 – 1849) are two 19th–century composers sometimes regarded as consciously applying GS in their compositions. See Madden (2005) who offers a critical study of GS analyses made by various authors of music ranging from pre-Bach to the 20th century.

15. Zeising, 1854.

was left to Emil Naumann¹⁶ in Part I of his work *Die Tonkunst in ihren Beziehungen*.¹⁷ Using bar counts as his unit of comparison, Naumann analysed movements from Mozart's Symphonies 40 and 41, from Beethoven Symphonies 4, 5, 7, 8, and 9 and individual fugues from Part I of Bach's *Well Tempered Clavier*. His approach was exploratory rather than assertive and dogmatic. As such, he recorded in each analysis the deviations in bars he obtained from the exact GS value, (which sometimes proved substantial). However, he also located precise, or near precise, GS proportions in Mozart's *Jupiter* Symphony (movements I and II), as well as in Beethoven's Symphony No 7 (movement II). The importance of Naumann's studies is that, firstly, he laid down the foundations for further investigation in proportional analysis of music, and secondly, his work also implied or suggested to others that musical forms could be *consciously established* through using proportions based on GS. In respect of Delius' own experimentation, a third important aspect of Naumann's work was his suggestion that individual components of GS proportion might be moved or 'switched around' in relationship to one another:

We note that it remains the same whether the short section [of the GS division]¹⁸ of an object, or of a living creature or a work of art– (and thus a piece of music) – is placed above or below, or before or after, the long section; or whether the short section is placed in between two separated components of the GS division, which when added together, comprise the long section and vice versa. Thus, for example, when the layout of a building is predominantly horizontal in aspect, it often happens that the central part of the building represents the short section whilst the two outer wings together form the long section.¹⁹

This is the only passage found in the GS literature which presages to some extent Delius' use of what are here termed *patterns* – namely types of tripartite or quadripartite construction in which the two outer sections are in GS relationship with each other as are (in quadripartite

16. Emil Naumann (1827 – 1888) studied music initially at Dresden, and subsequently, between 1842 and 1844, with Felix Mendelssohn at the Leipzig Conservatoire. He held positions in Berlin and taught at the Dresden Conservatory, dying in Dresden in 1888.

17. See Naumann 1869. The full title in English reads: *The Art of Music in Relation to the Forms and Development of All Spiritual Life Volume I: Music in the History of Culture*. For Naumann's discussion on GS and musical form see Chapter VIII.

18. Naumann, following Zeising, uses the terminology (for the two parts of a GS division) *Major* and *Minor*. These have been replaced here and in subsequent chapters by respectively the terms *Long* and *Short* (abbreviated "L" and "S").

19. *Wir bemerken noch, dass es sich ganz gleich bleibt, ob sich der "Minor" irgend eines Dinges, Geschöpfes und Kunstwerkes – daher auch eines Musikstückes – über oder unter, vor oder hinter dem "Major" befindet; oder ob der "Minor" durch die Mitte desselben, der "Major" dagegen durch seine beiden zusammengefassten Enden dargestellt wird, und umgekehrt. Wenn z. B. die Ausdehnung eines Gebäudes eine vorwiegend horizontale ist, so werden, in vielen Fällen, der Mittelbau den "Minor", die beiden Flügel dagegen, mit der Gesamtheit ihre Länge, den "Major" desselben repräsentieren.* Naumann *ibid* p.159.

patterns) the two inner (enclosed) sections.²⁰

An important addition to research on the history of the Golden Section and proportional analysis in music was published by the Hungarian Dénes Nagy in 1997.²¹ Among his several significant findings was the fact that Franz Liszt was an enthusiastic supporter of Adolf Zeising, Liszt writing in May 1859 for example:

I am delighted [...] that you have also been seeing Zeissing [Zeising] again. If there was any way at all to incorporate the latter with “German Music”, it would be a very nice gain. [...] I am also counting on you to explain the secrets of the “Goldene Schnitt [...] a method I would really like to apply in my own composition²²

Liszt subsequently referred several times to Zeising in his correspondence, emphasising in a subsequent letter to the Princess Marie that the “cultivation of Zeising” was his intention.”²³

Nagy concludes:

... His [Liszt's] curiosity about the golden section, either temporary or constant, is remarkable since Liszt was a very influential person with a large number of pupils and admirers and he kept close connections with many composers. We will later discuss views that the golden section played an important role in the works of Debussy and Bartók. Thus, it is interesting to note that Liszt was visited by the young Debussy in Rome²⁴ and he also initiated the foundation of the Academy of Music in Budapest where Bartók was later educated and became professor of piano.²⁵

Noteworthy also is the fact that Liszt appears to be the first composer to signal an intention to use the Golden Section in his music, whereas with earlier composers, GS had been regarded for the most part as manifesting itself purely through an unconscious faculty.²⁶

Another significant early contribution made to GS proportional analysis in music came from Russia namely with Yu. F. Vippper's 1876 booklet summarising Zeising's views but also

20. See Chapter 2 of the current thesis.

21. Nagy, 1997.

22. Letter from Liszt dated May 6, 1859 to the Princess Marie, the daughter of his partner Princess Carolyne Sayn-Wittgenstein. Quoted in Nagy p. 95.

23. Nagy p. 96.

24. This visit must have been made between the 8th and 13th of January 1886 when Liszt was present at the Villa Medici in Rome and where Debussy was a *Prix de Rome* recipient.

25. Nagy p. 98.

26. Charles Madden, on the other hand, suggests that various composers, ranging from the mediaeval to the early romantic period, 'must have known about' GS. See Madden pp 341 – 342 for a summary of his conclusions.

adding an original part of his own on the “golden section of time intervals.”²⁷ Further work in Russia, although much later than Vipper's, included that of the E. K. Rozenov, who lectured and wrote variously on the Golden Section. Nagy wrote of one of Rozenov's publications²⁸:

This publication represents an important shift away from the application of the golden section, or rather Fibonacci numbers, in the theory of harmony to the analysis of time-intervals. Rozenov first studied seven poetical works [...] then analyzed in detail a piece by each of the composers Bach, Beethoven, Chopin and Wagner.²⁹

A third contribution from Russian sources on proportional analysis was made by Leonid Sabaneev³⁰ who carried out analyses of 1170 works by 42 composers and claimed to have found that 75% of these included the golden section. He concluded that the golden section must have been used intuitively.³¹

Although scattered references to *la section d'or* had already appeared in French publications,³² the first substantial description of investigations on the Golden Section in Germany first reached academic circles in France in 1876, *via* a publication by the philosopher Charles M. Bénard.³³ There followed several articles on the proportion, frequently in the pages of the *Revue Philosophique de la France et de l'Étranger*, by various figures including Théodule Ribot, Charles Bénard, and Alfred Binet. The sources through which French artists and musicians first gained knowledge of GS, however, remain obscure. The French theorist Charles Henry (1859 – 1926) is often implicated in the dissemination, (post 1886),³⁴ of information on the Golden Section amongst French artists, but this postdates by several years Henri Seurat's

27. Vipper 1876. Information on the publication and authorship of this booklet are given by Nagy p. 86 and p. 98. As at 13 September 2015, no further details of this item have been traced in the catalogues of the Russian State Library, the European library or the World Catalogue. The term “time-intervals” used in Nagy's translation is further clarified on Nagy p. 98 as *temporal organization of musical pieces*.

28. Rozenov 1904 – however, as in the previous footnote, further details of this item have proved untraceable.

29. Nagy p.100.

30. Leonid Sabaneev (Sabaneyev/Sabaneyeff) 1881 – 1968 – from the age of 7 or 8 trained at the Moscow Conservatory and subsequently at Moscow University (1898 – 1906) where he graduated with a degree in mathematics. He became a renowned expert on Alexander Scriabin and published widely including books on Scriabin and Debussy. He left Russia in 1926, dying in France in 1968. See Sitsky 1994 pp 291– 302.

31. Nagy p. 100. For the original references see Sabaneev 1925 and 1927.

32. *corps humaine et de ses dimensions qu'on devrait appliquer dans les mesures des peuples selon les études du professeur Zeising (Nova aca nat.curios.) où il veut prouver que ces dimensions suivent la sectio aurea* [The human body and its measurements which should be made according to the studies of Professor Zeising where he wishes to prove that these dimensions follow the *sectio aurea*]. *Bulletin de la Société de géographie* [France] 1859 p. 412.

33. See Bénard 1876. Ribot (1875) p. 753 had previously discussed Zeising's work on GS but did not refer to the proportion as *la section d'or* or by any other designation.

34. Seurat and Henry first met between May and June 1886 – see Chapter 9.

first use of the proportion³⁵. Similarly, some scholars date Debussy's initial use of GS as 1880/82 which would also be too early for Henry's influence.³⁶ In addition, Roger Herz-Fischler, quoting Henry's own words from 1890, argues that Henry himself made no recommendations to any artists regarding the use of GS and in fact was unaware that any French artist was using the proportion.³⁷ Furthermore, Charles Lalo writing close to a period in Paris when the Golden Section had been in use by a number of artists and musicians, makes no mention of the proportion having been used by them.³⁸

The initial study in English on the Golden Section as defining 'form' in music was J. H. Douglas Webster's article *Golden-Mean Form in Music*,³⁹ in which he presents brief GS analyses of movements selected from the Baroque, Classical and Romantic periods as also from the early to mid- 20th-century composers (Debussy,⁴⁰ Delius,⁴¹ Scriabin, and Bartók)⁴². Webster raises the 'problem' of GS occurring in works written prior to the mid-19th-century, (when the Golden Section first came under scrutiny by German intellectuals), and concludes that it was 'probable that the form had been expressed instinctively so far by all musicians.'⁴³ He also discusses the stage at which the Golden Section, where consciously employed, is first

35. See especially Neveux p.175 *et seq.* *L'Œuvre de Seurat avant la rencontre de Charles Henry*, and Chapter 9 below, where Seurat's first use of GS is dated to between 1877 – 1881.

36. The works in question are the songs *Nuit d'étoiles* (1880) and *Mandoline* (1882) – see Madden p. 257.

37. "I do not state any place that the golden section and the harmonic proportion are eminently remarkable, they are furthermore completely unknown to contemporary artists. These proportions play absolutely no role in the general rules that I outline concerning the harmony of forms" Charles Henry, quoted by Herz-Fischler 1983 p. 110.

38. See Lalo (1908) where only the work of Zeising on musical harmonics and intervals is mentioned (p. 58). Charles Lalo, 1877 –1953, held the chair of aesthetics at the Sorbonne from 1933 until his death. He had previously studied there under Emile Durkheim under whom he had prepared his 1908 doctoral thesis as cited.

39. Webster 1950.

40. viz. Debussy *Nocturnes: Nuages* and *La Mer: Jeux de Vagues*. Howat gives a critique of Webster's analyses in his doctoral dissertation (Howat 1979 – not seen). Maddan (2005) supports several of Webster's analyses, whilst he rejects several others.

41. The Delius works discussed are *Sea Drift* (1903/4), *An Arabesque* (1911), and *The Song of the High Hills* (1911). Unfortunately, Delius uses a different model of GS proportioning in *Sea Drift* and *The Song of the High Hills* than was assumed by Webster, so that the latter's conclusions on these works must therefore be regarded as invalid. See Chapter 7 for alternative analyses of *Sea Drift* and *The Song of the High Hills*.

42. Webster also includes the American composer and pianist Edward MacDowell (1860 – 1908). In 1876, MacDowell, at the age of 15, travelled to Paris with his mother, where, at the Paris Conservatoire, he studied the piano under Antoine François Marmontel who was also Debussy's teacher. MacDowell moved to the Frankfurt Conservatoire c. 1878 where he underwent further tuition in piano and composition, and where he first met Franz Liszt who gave him support and subsequently championed the publication of some of MacDowell's works. MacDowell returned to the US in 1888, where in 1896, he took the chair in music at Columbia University. Webster's analyses of two movements from MacDowell's *Sea Pieces* op 55 (1898), suggest (especially in the case one of the pieces, *Starlight*) some indication of his using GS, although further examination of MacDowell's compositions would be needed to establish this.

43. Webster *ibid.* p. 247.

introduced into the compositional process: for example, at an initial stage, when first thinking of the material as a whole, or otherwise at later stages,⁴⁴ alternatives which are discussed in respect of Delius in later chapters.

In 1955, five years after Douglas Webster's paper, Ernő Lendvai published the first of a series of studies on proportion in Bartók's music, exploring the idea of the Golden Section as playing a fundamental role in the structure of two of Bartók's late works.⁴⁵ He also raised the possibility of GS-related numbers occurring in Bartók's compositional processes, including the structuring of musical phrases.⁴⁶ A significant observation of Lendvai's concerned GS acting as an overall organizing or proportioning principle in works comprising two or more separate movements. Thus, in the *Sonata for Two Pianos and Percussion*, the entire four movement work divides by GS between movements II and III.⁴⁷ Lendvai's work aroused much discussion and some controversy, sometimes linked to perceived inaccuracies of computation or observation, prompting the British musicologist Roy Howat's 1983 review article on Lendvai's proportional analysis of Bartók's music. Howat broadly accepted Lendvai's findings, to which he added notes on some additional Bartók analyses of his own.⁴⁸ In the same year Howat published his book *Debussy in Proportion* which quickly became, alongside Lendvai's, a standard reference on proportional analysis.⁴⁹ Amongst his observations, Howat identified in Debussy's music processes of what he termed *structural counterpoint* in which *the music's tonal and motivic events follow separate rates of change*,⁵⁰ thus leading to a situation in which the start or 'entry' of different proportional systems was 'staggered' so that they overlapped rather than being completely superimposed. Also innovatory was Howat's examination of much of Debussy's entire *œuvre*, identifying the approximate date of his first using the Golden Section, and thus preparing the ground for studies on the ingress of GS into Paris artistic circles.⁵¹

Following Webster's paper, a second author to raise the issue of the possible use of GS by

44. Webster continues: [at a later stage] 'after assembling from time to time phrases and periods which might be useful some day; and then in a creative spell uniting them (or a selection) into a whole' (Webster *ibid.*).

45. Ernő Lendvai (1925 – 1993). See Lendvai 1955. For two later publications by Lendvai on the same topic see Lendvai 1962 and Lendvai 1971/2000.

46. See for example Lendvai 1962.

47. See Lendvai 1971/2000 p. 26.

48. Howat 1983b.

49. Howat, Roy (1983a) *Debussy in Proportion – A musical analysis*. Cambridge: Cambridge U.P.

50. Howat 1983a p. 13.

51. For example, there seems to be currently little idea on when Bartók first began to use GS in proportioning his music. Such information would be invaluable in evaluating any influence his friend Delius may have had on him in this respect.

Delius was the French musician Jérôme Rossi, who in his doctoral dissertation, pointed to three works he thought showed evidence of GS proportioning. He assumed that, rather than being purposefully applied, these instances were probably the result of an innate or unconscious faculty.⁵²

A conspicuous aspect of publications on the Golden Section in music to date is the paucity of studies relating to German and Austrian composers of the second half of the 19th to early 20th century.⁵³ This may reflect a lack of any interest in GS on the part the composers concerned, but if so, this would be surprising in view of the widespread interest in GS in both German-speaking academic circles and within popular culture over this period. Some inconclusive studies on Brahms and one on Wagner have been noted, however.^{54,55} In a similar manner (and although less well-known than their French counterparts) no references have been found on GS use by German or Austrian painters for the same period.

Crucial problems facing research into the Golden Section in music may concern whether the GS proportion, wherever it appears, manifests itself wholly unconsciously (as reflecting an innate or archetypal configuration in the human brain) or whether it has instead been used in a fully conscious and purposeful manner. Another problem is whether the Golden Section has any real claim to primacy or especial significance over other proportions either in nature or in human creativity and aesthetics. In this connection, it will be useful briefly to comment

52. See Rossi 2005 p. 47: Rossi writes regarding the first Dance Rhapsody: *La référence au nombre d'or, probablement inconsciente chez Delius, n'est pas sans rappeler les principes de Bartók: elle est présente également dans Brigg Fair. [...] Il existe par ailleurs une correspondance significative entre Delius et Bartók.* [The reference to the Golden section, probably unconscious in the case of Delius, recalls somewhat the techniques of Bartók: it is present also in *Brigg Fair*. More especially, there exists a substantial correspondence between Delius and Bartók]. Rossi broaches the topic of the Golden Section four times in his thesis: For *A Dance Rhapsody* (No 1) see p. 47; for *Brigg Fair* p. 71; for the *Two Pieces for Small Orchestra*, p. 119 and p. 162. Unfortunately, Rossi's proposed GS divisions are all too inaccurate to be realistic and are all based on models of GS proportioning invalid for the works in question. For the current author's analysis of the *Two Pieces for Small Orchestra* see below (present chapter). As regards *Brigg Fair*, Delius initially proportioned this work according to a process designated here as *Distribution and Reordering of the Products of GS Division*. He then casts the entire work as a *Complete Golden Section Pattern* (notated as A||B: B' ||: A' = 35 || 218: 137 || :23 bars) where the values in the outer pair, 35: 23 bars, and inner pair, 218: 137 bars, are each in golden section proportion with one another, – albeit in the case of the first pair, rather approximate – see Chapter 2 for a discussion of the techniques involved.

53. For example: Max Bruch (1838 – 1920), Gustav Mahler (1860 – 1911), Hugo Wolf (1864 – 1903), Richard Strauss (1864 – 1949); Alexander von Zemlinsky (1871 – 1942) and Max Reger (1873 – 1916).

54. For Brahms' symphonies see Webster p. 243 and for the symphonies and smaller works see Madden pp 223 – 228. Madden (pp 223 and *passim*) also cites work on Brahms and GS covered in four post-graduate theses. In addition, he comments briefly on an analysis by Pascoe of the prelude to Wagner's *Die Meistersinger* (pp 242 – 243).

55. There is a corresponding lack of any record from Germany between 1854 and 1888 of any references to the notion of *overlapping* or *superimposing* different GS proportioned passages of music, or of music being proportioned according to the topography of its *dynamics* (as described in subsequent chapters). The same lack applies also to French publications for the same period.

only on one particular fallacy connected to the identification of composers and compositions supposedly using GS. Difficulties stem from problems of insufficient sampling technique and insufficient sampling numbers – *i.e.* conclusions that GS is being used are based on a very small sample of selected cases which already approximate to GS, whilst other (non- GS) examples are being ignored or excluded from the data. Thus, for example in Mozart or Haydn sonata form movements, where one is testing over a large number of cases, the hypothesis that the proportion (exposition + development)/movement total bars = φ ,⁵⁶ one should initially plot *all* data obtained, *including proportions not approaching GS values*. This will help establish the position of GS in relation to the remaining proportions and indicate to some extent whether GS proportions predominate or merely occur as peripheral or extreme values within a larger population, a population which in fact may average or be distributed around a different value such as 0.666667 ($\frac{2}{3}$), 0.600000 ($\frac{3}{5}$) or 0.625000 ($\frac{5}{8}$), or not show any trend at all. Figure 1. 1 shows some hypothetical situations illustrating where the presence of values approaching φ may be considered potentially significant or otherwise.

* * * * *

Important sources regarding Delius' personality and outlook, especially the younger Delius, include his sister Clare's biography,⁵⁷ together with documents, memoirs and other information held in British,⁵⁸ Australian⁵⁹ and American⁶⁰ libraries. Charles Francis Keary's novel *The Journalist*, two of whose main characters are based on the Delius of the 1890s, has proved of especial relevance regarding topics addressed in the current thesis.⁶¹ Several collections of Delius' letters have also been published, although these, where they occasionally raise issues beyond everyday matters, often indulge in polemics against Christianity, British society *etc.* and rarely seem to offer any hint of Delius' personal experiences or beliefs. Several authors have broached the topic of 'mysticism' both with

56. The symbol for the precise GS value of 0.618034 is represented by the lower-case Greek letter 'phi' or φ . The equivalent upper-case symbol is Φ and represents the reciprocal value of $\varphi = 1/0.618034 = 1.618034$. Both Φ and φ are irrational numbers, normally rounded off to 6 decimal places in the current presentation.

57. Clare Delius 1935.

58. Scores, drafts, sketches and correspondence together with several Delius notebooks are held in the *Archives and Manuscript Section* of the *British Library*.

59. Correspondence and some scores are held at the Grainger Museum, University of Melbourne, Melbourne.

60. Holdings in the US include *The Delius Collection* at *Jacksonville Public Library*, and *The Gloria Jahoda Frederick Delius Collection, 1884 –1969* at the *Florida State University Special Collections, Archives & Manuscripts*

61. Keary 1898.

regard to Delius the man as well as his music. These include Charles Keary in his above-mentioned novel *The Journalist*, as well as Cecil Gray,⁶² Arthur Hutchings,⁶³ Christopher Palmer⁶⁴ and Philip Heseltine.⁶⁵ A more recent addition to this literature has been Thomas Bertonneau's *The High Hills: Frederick Delius and the Secular Sublime*⁶⁶ in which he alludes to aspects of mystical experience relating both to Delius himself and to his major works. Drawing upon Colin Wilson's *Brandy of the Damned* as his source, Bertonneau also touches upon the topic of Delius' 'split personality':

Addressing the probable motive behind Delius's vehement espousal of Nietzsche, Wilson proposes that: "Like Yeats, Delius created a mask, an anti-self, as a defence against the world [...]. The letters show no obvious resentment but taken in concert with private remarks in later life as detailed by Fenby and with music itself, one can hardly not conclude that Delius, as Wilson argues, spent much of his life in smouldering revolt against the enmeshing banalities of modern existence."⁶⁷

The question of Delius' 'split personality' had already been corroborated in fictional form in the contrasting characters of Richard Vaux and Sophus Jonsen in *The Journalist*. However, general or received views regarding Delius' disposition have often been heavily over-influenced by the opinions of Eric Fenby, whilst at the same time neglecting those of his other friends:

And as Delius was one of the most charming, the most original, and the most golden of men, it is not surprising that the friendship [with Beecham] grew apace.⁶⁸

...Entirely self possessed, he never raised his voice – his speech was as normally mellow as his music. It had no corrosive quality, even when he made the most biting observations. His look was slightly disdainful, yet it was also kindly and serene – the mouth showed that; The eyes were not piercing, they reflected an inward rather than outward gaze, as though he could not be bothered with external things. . . Fenby talks of Delius' "sternness" during the closing years. I never saw anything of this, and I am inclined to think that any forbidding traits of character came more from ill-health than ill-nature.⁶⁹

And I feel that the loftiness and spirituality of his music rise directly out of the

62. Gray 1948.

63. Hutchings 1948 p. 179 *et seq.*

64. Palmer 1976 *passim*. See also Palmer 1981 Notes to "The Fenby Legacy" Unicorn-Kanchan DKP 9008/9.

65. Heseltine 1952 p.135; see also Heseltine in *The Music Bulletin*, May 1923, Vol 5, No. 5, 144 – 147. [Reprinted in *Occasional Writings of Philip Heseltine* Vol 3].

66. Bertonneau 2007.

67. Bertonneau *ibid.* Section IV.

68. Ethel Smyth p.18.

69. Roger Quilter, quoted by Foss in Heseltine 1952 pp 160 – 161.

beauty of his inner being – out of his freedom from ambition, ignoble eagerness, and other forms of worldliness; out of his passiveness, tolerance, compassionateness, and tenderness; out of the inborn gaiety and gracefulness of his aristocratic nature ... the portrayal of his last years is misleading...from 1907 to 1932 I noticed nothing of the grimness and sternness that others saw in him. In spite of this, one had a feeling that the depths of his nature – the nostalgic and compassionate sides – were hidden away...⁷⁰

Dissertations covering Delius have been largely concerned with his music, rather than Delius' character. However, in her doctoral dissertation, *Gentlemen v. Players: Alienation and the Esoteric in English Music 1900–1939*, Diana Swann examines the contrasting outlook, ambitions and motivations separating two main groups of English composers.⁷¹ Adopting the metaphor of a cricket match in presenting her argument, she examines the reception history of each group ('team'), citing evidence for competition between them, and discussing a possible ascendancy over, or ousting, of one group by the other. The characteristics of the first team – 'The Gentlemen' – lead by Ralph Vaughan Williams,⁷² include a public school/Oxbridge background, and musical training at the Royal College of Music, coupled with a world view described as 'agnostic Christianity'. More especially their ambition was to create an English national school of music based on folk song sources and establishing an English pastoral idiom. The second group – 'The Players' comprised a circle of composers whose objectives were less well defined than those of the Gentlemen.⁷³ They held no interest in developing any English National School of music and their personal beliefs and foci strayed considerably farther from the acceptable English/British 'norm' than the Gentleman. Holst and Foulds for instance both immersed themselves in Indian thought, whilst Cyril Scott became a committed Theosophist, publishing a series of books linked to his theosophical and occult beliefs. Philip Heseltine on the other hand became involved in Western esoteric practice.

Regarding Delius himself, Swann includes him, perhaps rather uncomfortably, along with John Ireland (1879 – 1962) and Arnold Bax (1883 – 1953), as 'reserves' for the Gentlemen's team. This is partially on the basis of an initial degree of acceptability displayed towards them by the Gentlemen, especially as a result of their tendency to evince folk song

70. Percy Grainger, quoted by Foss in Heseltine 1952 pp 179 – 180.

71. Swann 1997.

72. Ralph Vaughan Williams (1872 – 1958). His followers included Gerald Finzi (1901 – 1956), Patrick Hadley (1899 – 1973), Herbert Howells (1892 – 1983) and E.J. Moeran (1894 – 1950) – see Swann p. 12.

73. They included Cyril Scott (1879 – 1970), John Foulds (1880 – 1939), Gustav Holst and Philip Heseltine. The last two being 'covert' members of the group.

elements in their compositions.⁷⁴ Swann does, however, emphasize an important distinction between The Gentlemen and the Gentlemen's Reserves in the latter's response to landscape: 'Though the Reserves' attitude to landscape transcended what they saw before them into realms that smacked of Nature-mysticism and the sublime, as opposed to simple pastoral scene-painting, they were enough in tune with the Gentlemen to be regarded as sympathetic.'⁷⁵

Delius' name could well have been included alongside Holst and Warlock's in 'The Players': Delius remained completely secretive regarding the esoteric content of, for example, his first three operas – only once mentioning the subject of alchemy, and then only in connection with his friend August Strindberg's alchemical involvement.⁷⁶

In Chapters I and II of Ellen Crystall's doctoral dissertation *Esoteric Traditions and Music in the Early Twentieth Century with an Appraisal of Composer Cyril Scott*⁷⁷ the author offers a broad survey covering respectively 'Esoteric Traditions and Music history', and 'The Influence of Esoteric Traditions in the Arts'. Chapter III discusses individual (mainly 20th century) composers who were, to varying degrees, interested in, or exposed to, esoteric viewpoints. Delius himself is not listed although some of his contemporaries in Paris are discussed including Debussy, Satie and Ravel.

Finally, several books concerning the esoteric and esoteric movements in 19th –century Germany and France should be mentioned. Major studies include those of Corinna Treitel, Joscelyn Godwin and Jean Pierrot⁷⁸ whilst (in the case of France) several contemporary bibliographies offer information on the large number of publications on esoteric matters appearing during the 19th –century and earlier and have been found useful in preparing this

74. During the first sixty years or so of the 20th– century, there was perhaps a general inclination to regard Delius and his music as being more 'typically English' than there has been in recent years. Due to his declared apathy towards 'English Music,' opposition towards Christianity, his attraction towards Hermeticism, Nietzsche's teachings and a monist/pantheist outlook, Delius should have perhaps been placed by Swann more convincingly within the opposing Players' team rather than with the Gentlemen.

75. Swann p. 23. Swann later continues: 'Whereas the pastoral establishment mainly loved and appreciated the natural scene as exemplified by an English rather than a foreign, landscape, they did not regard it with reverence. At the most, it represented the mourned 'lost content' of the past, closely linked with rural humanity [...] not a timeless unfathomable force, unconcerned with the petty minutiae of human existence. If a sense of Nature-mysticism is expanded into religious awe, it becomes worship of Nature as a deity and can be linked with pantheism, in that it is an identification of God with the forces of Nature. As such, it was found both consciously and unconsciously in the work of Delius, Bax and Ireland, but not in that of the Gentlemen.' Swann p.47.

76. See Delius (1920) reprinted in Boulton Smith (1983). In Charles Keary's novel *The Journalist* two of the main characters are based on Delius, one of whom, Sophus Jonsen, is both a follower of Nietzsche and a practising alchemist – see Keary 1898. Keary was a friend of Delius during the 1890s and was involved with the libretti of three of Delius' operas, *Irmelin*, *Koanga* and *A Village Romeo and Juliet*.

77. Crystall 1996.

78. See Treitel 2004; Godwin 1995 and Pierrot 1981.

*Two Pieces for Small Orchestra: An Analysis*⁸⁰

The *Two Pieces for Small Orchestra* were written between 1911 and 1912, the first being the well-known *On hearing the first Cuckoo in Spring*, the second, *Summer night on the River*. The first step in examining the pair for signs of any *overall* proportioning strategy, is to plot the main musical events to scale along a horizontal axis.⁸¹ This helps establish any proportional relationships connecting the two movements. The *Two Pieces for Small Orchestra* differ from other Delius works examined in that the work is shown to have a clear design both in its overall structure as well as its two individual movements only when plotted in a quaver reduction format (and not the more frequently encountered bar or crotchet formats).⁸²

Figure 1.2 line 2 shows that the two movements are in precise *Golden Section* proportion to one another, the deviation from the exact mathematical value being only 0.000287 (equivalent in note values to about a semi-quaver discrepancy over the entire work).⁸³

Also, there is a second GS proportion 1B and 1B', 450: 276 quavers, sharing with the first the same point at 1135 quavers separating the two movements. An important property of these two GS proportions aligned in this manner is that together they form a *pattern* in which sectors 1 A and 1 A' are also in GS proportion of 684: 424 quavers.

The next stage relates to the two individual movements respectively of 1134 and 700 quavers. The way Delius decides on the proportions within each movement *i.e.* 216 + 756 + 162 and 180 + 436 + 84 quavers is not arbitrary but is also based on mathematical proportioning. For the *First Cuckoo* he uses 2: 1 proportion and for *Summer Night* the Golden Section:

First Cuckoo: the total 1134 quavers $\times 0.666667$ (or $\frac{2}{3}$) = 756 quavers which comprise the central section (2B). The remaining 378 quavers are then subdivided irregularly into 216 and 162 quavers, comprising the outer sections 2A and 2A' of the movement. The central section is marked out musically from the two outer sections by the introduction of fragments of the folk tune and their development up until the recapitulation of the opening section (2A') at the *In tempo* marking (quaver-line 973).

79. See Caillet 1912 and de Guaita 1899

80. An annotated score of the *Two Pieces for small Orchestra* is included in Annexe I of this thesis.

81. See Figure 1.2 line 1.

82. *i.e.* in *compound time* let a dotted crotchet = 3 quavers. Thus, one bar of $6/8 = 6$ quavers and of $12/8 = 12$ quavers *etc.* Normally Delius either proportions in *bars* and/or in *crotchet* reduction. For the latter he invariably lets one dotted crotchet = one crotchet beat; thus, one bar of $6/8 = 2$ crotchets and $12/8 = 4$ crotchets.

83. Refer to the set of data in the column to the far right of Figure 1.1. The Greek letter ϕ (phi) is the symbol used in referring to the Golden Section.

Summer Night: the total 700 quavers $\times 0.618034$ (= the GS value ϕ) = 433 quavers which comprise the central section (actually 436 quavers). The remaining 264 quavers are subdivided irregularly to allot respectively 180 and 84 quavers to the outer sections 3A and 3A'.

Having devised the 'proportional shape' of each movement the final step is to apply some further proportioning to each of the two movements. This is limited to sectors 2 B and 3 B – the central sections of each and employs only the Golden Section.

To understand the significance the Golden Section in section 2 B of the *First Cuckoo* it is necessary first to realize that the tune used by Delius only appears in its complete form late on in the movement, only entering from quaver line 685 (bar line 58):



Hitherto, only fragments of the melody have been quoted. The importance of this full entry is that it arises *immediately following the main 'GS point' of the central section* and fulfils one of the most important aspects of the GS point in GS technique: that of initiating, announcing, emphasising or underlining an important musical event or change. Notice too that this same point (at 685 quavers) also has a significant place in pattern 1, at the juncture of sections 1A and 1B (Figure 1.2 line 3).

The GS division now formed, 468: 288 quavers, (Figure 1.2 line 4), now undergoes further subdivision in the 468-quaver limb, the two subsidiary GS points being at the start of the E major harmonization of fragments of the main theme (quaver 397) and at the first 'cuckoo call' (quaver 505, marked with a green 'lollipop' in Figure 1.2 line 1). In a similar manner to the *First Cuckoo*, the extent of the central section of *Summer Night* is delimited by the presence of its main theme: Four of the total five entries are positioned by the overall span of section 3B (the first and the fifth entries, marked respectively in red and blue in Figure 1.2 line 1) and by two subdivisions using GS (the third and fourth entries, both marked in red). Also, the position of the fifth entry (marked in blue) has been calculated to conclude at quaver-line 1751. The placing of entry number two (marked in purple) has been determined not by any 'local' proportioning within the *Summer Night* movement but derives externally from the overall pattern spanning both movements (Figure 1.2 line 3).



Several issues present themselves regarding the above analysis. Firstly, the importance of proportional analysis as a research tool in the study of Delius' works: for example, if we did not already know, we might surmise that *Summer Night*, with its rounded total quaver count value of 700, was composed prior to the *First Cuckoo*.⁸⁴ In addition, Delius' use of 0.666667 (2: 1 or $\frac{2}{3}$) in the *First Cuckoo* would suggest that he originally intended the movement to be placed *second*, 2: 1 proportioning being a favourite 'signing off' device of the composer, often appearing only in the final stages of a work. Secondly, Delius' proportional approach in the *Two Pieces for Small Orchestra* offers no indication in deciding on their relative timings in concert performance; thus timings of several recorded performances show that the relative average comparative duration of the two movements lies very far from the GS value φ ,⁸⁵ and suggests that Delius conceived proportioning more as a medium for attaining alternative objectives, such as, for example, creating overall 'structure' or 'form'. Thirdly, the complexity of Delius' proportioning strategy will be wholly unexpected to many, the intricacy of several his larger works, for example, offering an extreme challenge to any attempt at proportional exegesis. Furthermore, Delius' (reputed) rather languid and 'formless' late romantic style seems to act almost as a 'foil' or 'camouflage' cloaking the underlying proportional elaboration, and hence his music has rarely offered, at least in traditional British musical circles, any encouragement for analysts to explore further.

By referring to Emil Naumann's remarks quoted above, an additional and crucial observation on the proportioning techniques used in the *Two Pieces for Small Orchestra* can now be made: This is, that in part these follow a technique outlined by Naumann quoted above *viz.* one of a pair of values which are in GS proportion is split into two irregular components which are then separated to enclose the first part. Thus (as outlined above) in *Summer Night* the original GS proportion of 436: 264 quavers becomes 436: (180 + 84) the 180

84. *Summer Night* was composed in 1911 and *The First Cuckoo* in 1912 – see Threlfall 1977 p. 147.

85. A survey of eight different recorded performances of the *Two Pieces* showed that in only five cases timings for *The First Cuckoo* exceeded those of *Summer Night*, and in these five cases the proportion: *duration (seconds) of The First Cuckoo/duration of both pieces* ranged between 0.542614 (Beecham 1927) and 0.510471 (Beecham 1948), with the remaining performances (Barbirolli, Mackerras and Beecham 1958) giving intermediary values.

and 84 sectors comprising respectively 3A and 3A' (enclosing 3B in Figure 1.2 number 5). A similar procedure is used in the *First Cuckoo* where initially a $\frac{2}{3}$ value is used instead of φ . This splitting technique can be traced back to at least the Germany of 1869, when Naumann published his *The Art of Music in Relation to the Forms and Development of All Spiritual Life*. It is not known whether Delius had perhaps known Naumann personally (Naumann died in Dresden in 1888); a more likely hypothesis is that Delius may have been strongly drawn to the title of Naumann's ambitious work where he first gained knowledge of the technique. A second main feature in the proportioning of the *Two Pieces for Small Orchestra* is Delius' use of a special 'pattern' which subsumes both movements.⁸⁶ This pattern, has been found of critical importance in the uncovering of Delius' proportioning praxis, and is termed here *The Complete Golden Section Pattern*.⁸⁷ Again this design appears to have originated in Germany, possibly in the early decades of the 19th –century.⁸⁸

The chapters of this thesis fall into roughly two main groups: Part I (Chapters 2 – 11) largely concerns the various proportioning strategies used by Delius, by his predecessor Felix Mendelssohn in Leipzig and by some of his contemporaries in the fields of art and music in France. Esoteric matters are also touched upon especially regarding Delius' first three operas. Part II (Chapters 12 – 14) will cover Delius' circle of friends of the 1880s and 1890s, concentrating primarily on their esoteric interests. It will also raise two important aspects pertaining to Delius personal or inner life: ascensionism and mysticism

Chapter 1 has briefly described some previous studies on Delius and form. A general account of investigations into the use of proportion in music, especially on the Golden Section in the 19th and early 20th centuries is then given. This is followed by an indication of some sources on Delius' personality offering glimpses of a wider and more balanced view of the composer than has become generally established through the concentration on Delius as a quadriplegic during his final years. The chapter concludes with an example of a proportional analysis, presented as a kind of *prolegomenon* in respect of some of the more complicated examples in later chapters.

Chapter 2: Based on works belonging to Leipzig and to the first few years in Paris, Delius' main strategies of proportioning are described and illustrated in graphic format. There follow notes and illustrations on the proportioning used in individual early compositions.

Chapter 3 covers some early 'problem works' *i.e.* works which appear to have been wrongly dated or have been variously misconstrued in other ways.

86. See Figure 1.2 line 3.

87. See Chapter 2 for a full description of this design.

88. See Chapter 11.

Chapter 4 is the first of three chapters covering Delius' first three operas. This initial chapter deals with one of Delius' most complex and challenging works: his first opera *Irmelin*.

Chapter 5 covers the second opera *The Magic Fountain*.

Chapter 6 will discuss the third opera *Koanga*.

Chapter 7 examines the use of proportion in some works of Delius' maturity: *Sea Drift*, *A Mass of Life*, the opera *Fennimore and Gerda*, *A Song of the High Hills*, *Eventyr*, the *Cello Concerto* and *Songs of Farewell*.

Chapter 8 concentrates on some of the essential principles governing Delius' proportioning praxis. Emphasis will be laid on the role of large scale proportioning in Delius works, as well as the part proportion does (or doesn't) play at more local levels. The chapter concludes with some suggestions on an approach to carrying out proportional analysis on Delius' music.

Chapter 9: In view of Delius' closeness to the community of artists in Paris, this chapter will examine any role GS played in the artwork of some of most prominent artists in Paris of the 1880s and 1890s, including *Henri Seurat* and *Paul Sérusier*. The objective will be to determine if there are any parallels in GS usage between Delius and individual artists concerned, or any cross-influences.

Chapter 10: With the objective of establishing any mutual influence, the proportioning strategies in the earlier works of *Claude Debussy* will be compared with those of Delius. In Leipzig, Delius' proximity to the University and his period of training at the Leipzig Conservatoire will be considered as possible contemporary sources for his early expertise in proportioning his works.

Chapter 11: As the founder of the Leipzig Conservatoire and former teacher of some of Delius' own teachers at the Conservatoire, this chapter will include some preliminary proportional analyses of selected works by *Felix Mendelssohn*.

Chapter 12: Mindful of Delius' intense interest in esoteric matters as displayed in his operas *Irmelin*, *The Magic Fountain* and *Koanga*, Chapter 12 will investigate how much this interest was reflected by Delius' choice of friends and close colleagues of the 1880s and 1890s. A note on Delius' favourite sister Clare, is also added.

Chapter 13 discusses the topic of *ascensionism* – the urge to ascend, to climb or to soar upwards – as shown in Delius' choice of texts and in the contours or 'topography' of some of his music.

Chapter 14 discusses the subjects of 'mysticism' and *mystical experience* in respect of Delius and his music.

In a final concluding section, some findings of the previous chapters will be assembled and discussed, and some suggestions made concerning future research into Delius.

* * * * *

Part I

Chapters 2 – 11

Delius' Use of Proportion
Proportion in some French & German Contemporaries.

Felix Mendelssohn.

Esotericism in Delius' Early Operas.

In Chapters 2 and 3, details of Delius' methods of using proportion in his Leipzig and early Paris compositions (*c.* 1887 to *c.* 1892) are considered.⁸⁹

The content of Chapter 2 is set out in three sections: Firstly, a brief preamble is presented on some methods of calculating Golden Section (GS) proportions which were available before the onset of electronic computing facilities. This should help throw light on those techniques of determining GS numbers which were available to Delius and his contemporaries as well as to those working with GS proportion in earlier periods. *Part I* then outlines some main features of Delius' proportioning methods, also explaining the terminology used. Details of various terms and features are set out graphically in Annexe II Figures 2.1 to 2.8. In *Part II* descriptions of some features of proportion, occurring within individual works belonging to the period under review, are presented. Information is again primarily in graphic format and is laid out in a series of large diagrams (Annexe II Figs 2.9 to 2.17). At this point, it should be strongly emphasized that a much larger range and quantity of information on Delius' proportioning techniques is presented in the A4 and A3 diagrams than is possible in any corresponding textual descriptions, and it is to these diagrams which one should turn for a fuller grasp of Delius' methods. Accordingly, the supporting textual descriptions, which have been written in an abbreviated or note form, are meant to be read only in conjunction with, and as a support to, their corresponding diagram(s).

Mechanical Computation of GS proportions:

No reference has been found in the music literature to any potential use of hand-operated computing machines being employed during the nineteenth century to calculate GS proportions. In fact, such machines were first commercially available as early as 1851 when production on an industrial scale began in France – and which, in subsequent decades, quickly became a standard item in offices throughout the world. An article written in 1857 for instance describes one of the best-known of these machines, the Arithmometer, as follows:

M. Thomas's arithmometer may be used without the least trouble or possibility of error, not only for addition, subtraction, multiplication, and division, but also for more complex operations. . . . A multiplication of eight figures by eight

others is made

89. Delius' first completed opera, *Irmelin*, dated as *c.* 1890 – 1892, will be discussed in Chapter 4.

in eighteen seconds [. . .] The working of this instrument is, however, most simple. [. . .] The arithmometer is, moreover, a simple instrument, of very little volume and easily portable. It is already used in many great financial establishments, where considerable economy is realized by its employment.⁹⁰

Another possible method of calculation of GS values would have been by using a slide rule. These perhaps required a bit more expertise than was required for machine computation, but there seems to be no reason why either Delius or any colleagues interested in proportion could not master the technique.

Hand calculation of GS proportions:

The critical value used in all calculations of GS is signified by the (lower case) Greek letter ϕ (phi) symbolising the irrational value (here taken to 6 decimal places) of 0.618033(9887. . .).

An initial point to make is that GS values are all additive. Thus, for example, if one is given the first two GS values for 7 then the GS values for 70, 700 or 7000 can be easily seen by inspection:

7	= 4.326238 and 2.673762
70	= 43.26238 and 26.73762
700	= 432.6238 and 267.3762
7000	= 4326.238 and 2673.762

The first task therefore in learning how to calculate GS proportions for a given number is to prepare a short table of the values of GS proportions for the numbers of, for example, 1 to 10.

1 x 0.618034	= 0.618034 and 1 - .618034 = 0.381966.
2 x 0.618034	= 1.236068 and 2 - 1.236068 = 0.763932

Similarly:

3	= 1.854102 and 1.145898
4	2.472136 1.527864
5	3.09017 1.909830
6	3.708204 2.291796
7	4.326238 2.673762
8	4.944272 3.055728
9	5.562306 3.437694
10	6.180340 3.819660

From this short list, GS values for higher numbers can be rapidly calculated. For example, to find the main (first two) GS values for the number 547, calculate the value for 500 (5 = 3.09017): move the decimal point two places to the right = 309.017
for 40 (4 = 2.472136): move the decimal point one place to the right = 24.72136

⁹⁰. From an article published in January 1857 in *The Gentleman's Magazine* and quoted in the Wikipedia entry entitled *Arithmometer* [accessed 4.10. 2017].

7 = 4.326238 (from above table). The first GS value for 547 is therefore these sums added: $309.017 + 24.72136 + 4.326238 = 338.06(4598)$. The second GS value = $547 - 338.06(4598) = 208.93(5402)$.

More rapid results can be achieved if one continues the above list from 10 to 100. This would then create the ability to compute required GS proportions by the addition of just 2 values *viz.* the first value for 871 would be $800 + 71 = 494.4272 + 43.8804 = 538.3076$, and the second value (obtained by difference) = 332.6924 . Similarly, extension of a list of GS values running from 1 – 1000 would obviate the need for any calculation, GS values being directly read from such a list, and so averting the need for composers' hand-written GS deliberations on their manuscripts or elsewhere.

In practice, preparation of such an extended list of paired GS proportions could be made initially using machine computation (as above) the list then being kept for subsequent reference.

Part I:

General Nomenclature: A summary of the general basic nomenclature used in the current thesis – applicable to all types of Delius' proportioning – is set out in Fig. 2.1. nos 1 and 2.

Type I GS: This is the type of GS most frequently identified in proportional analysis. Fig. 2.1. no 3 illustrates the process of *serial subdivision* by Type I GS. Also shown is the *method adopted in calculating estimates of GS* and their deviation from the 'precise' GS value (= 0.618034 as above).

Type I Formations: Fig. 2.1. no 4 and Fig. 2.2 nos 1 a. and 1 b. show two types of formation used by Delius based on Type I proportioning: the first the *Type I GS pattern*,⁹¹ where (in the example) the total 456 crotchets has undergone an initial subdivision into 172: 284 crotchets, a further subdivision giving 172: (178:106) crotchets. The resulting outer values are therefore also in GS proportion (172: 106). Outer values may also be 'matched' musically, whilst the inner section is musically contrasted, giving an XYX' ternary design. Fig. 2.2 nos 1 a. and 1 b. show two examples where divisions are *subdivided at their two main GS points* (the L: S and the

91. The term *pattern* as used in Type II proportioning is defined as any formation in which two outer sections enclose an inner section and where the outer sections are in GS (or less frequently 2: 1 or 1: 1) proportion to each other. Where only three sections occur, the pattern is termed 'tripartite' and the sections are designated respectively ABA'. Where the inner section is subdivided by GS, 2: 1 or 1: 1, the pattern is 'quadripartite' and the sections are designated ABB'A'.

S: L GS points)⁹² so that the two component *asymmetric* GS divisions combined now appear as a *symmetrical GS pattern*.

The Ascent Formation: Fig. 2.2 nos 2 a. and 2 b. illustrate the process of applying an overall proportional design which spans both the 'approach to' and 'return from' a climax. The number of bars from a starting point before a climax to the climax itself (e.g. 37 bars beginning at stanza 2 of the text) is complemented by the number of bars following the climax – (here 22 bars, giving the GS proportion 37: 22 bars). When only a single GS division is involved, the formation would be Type I, but where more than one division occurs (as in the present example), the formation would be Type II (see following).⁹³

Type II GS: Fig. 2.3 no 1 explains the principle underlying the formation of the Type II pattern and the Type II hierarchy:

the partitioning-off of complementary GS sectors, one from each side (limb) of an existing GS division, will leave the total remaining values in each limb of the division also in GS proportion with each other.

If the parent division is in L: S format, then the partitioning of complements must also be in L: S format; (and in an opposite manner, for the S: L format).

An important special instance of this property in Delius is shown in Fig. 2.3 no 3, where partitioning-off of GS complements can either be envisaged as occurring in an *inwards direction from the end points of the parent division* (shown as red, inwards-pointing arrows) or *in the opposite direction, with GS complements measured outwards from the GS point of the parent division* (shown as black, outwards-pointing arrows). In either case, the remaining sectors are also in GS complement, as explained above. The process of partitioning-off is illustrated here two-dimensionally, as a hierarchical series of divisions, each successive division being shorter than the one above, *i.e.* the method of envisaging the direction of measurement will be *outwards from the GS point* (Fig. 2.3 no 3 and Figs 2. 4 and 2. 6).

The Type II Complete GS Pattern (CGSP) is formed between any two divisions in a hierarchy.⁹⁴

A significant feature of the CGSP is that it conceals four different GS proportions among its

⁹² L and S are abbreviations for the Long and Short limbs of a GS or 2: 1 division. See Figure 2.1 line 2 and Chapter 1 footnote 18.

⁹³ *Mixed hierarchies* are also frequent, where the uppermost member is often a 2: 1 division and the remaining members are usually GS.

⁹⁴ However, the end points of the lower division *must not coincide with any of the GS points of the division above* as this would constitute a Type I subdivision of the upper limbs (Fig. 2.4 no 1 a).

four sectors ABB'A' (Fig. 2.4 nos 2 and 3) so that in *extended hierarchies* of more than two members, the numbers of CGSPs and of concealed GS proportions are multiplied according to the total divisions in the hierarchy (Fig. 2.6).

The *Switched Complete GS Pattern* occurs when the position of two sectors of an ABB'A' pattern is reversed – most frequently, it is the two 'B' sectors which are switched in this manner (thus: AB'BA' – see Fig. 2.7).

The 2: 1 Hierarchy and the Complete 2: 1 Pattern: These are analogous to their GS counterparts in construction, and to some extent, also in their characteristics (Fig. 2.5). Typically, the Complete 2: 1 Pattern occurs towards the end of a work, where it succeeds GS proportioning occurring earlier.

The Distribution and Re-ordering of the Products of GS Division: This may occur at (ostensibly) the earliest stage of planning the overall proportions of a work, where a product or products of GS proportioning may, for example, be 'split' unequally and moved away to different parts of a composition (Fig. 2.8 no 1) or where a single sequence of bars or crotchet beats is separated from its parent GS product, and then placed at a distance from the remainder of the parent sequence (Fig. 2.8 no 2).

Cycles of Subdivision and Redistribution Involving Alternating Stages: several stages of subdivision by GS, often alternating with stage(s) of unequal subdivision, also occur (Fig. 2.8. no 3).

A general precaution in examining Delius' techniques of subdivision and redistribution is that only relatively small arrays of initial values should be included in any assessment:⁹⁵ with an increasing number of values in an array, the probability that these can be regrouped to produce a precise (but fortuitously achieved) GS proportion will also increase.

*A preliminary outline of Delius' proportioning strategies from c. 1887 to the completion of Irmelin*⁹⁶

'Form' in Delius' early works (where 'form' is being defined in terms of proportion) may best be visualized as arising from a 'top-down' or *descending hierarchy (or series of hierarchies)* of

⁹⁵ In practice, a total of not more than 10 values in an array has been adopted in the current work.

⁹⁶ The years 1890 – 2 are usually given as the period of composition for *Irmelin* (Threlfall 1977, p. 21). See also Chapter 4 below.

divisions, subdivisions and of patterns which are subsumed under an uppermost *primary division* and/or *primary pattern* – (these two latter, generally spanning the *entirety*, or otherwise a *large sector* of a movement or work). The primary division may be in 2: 1, 1: 1 (bisection), or in GS proportion, whilst a primary pattern may be constructed from any of these three proportions. If more than one type of primary division occurs, not all of these may receive any appreciable subdivision.

Vertical dominance and proportion. Of the three main proportions used by Delius, the 1: 1 division or pattern generally holds the highest position in a hierarchy; similarly, 2: 1 patterns and 2:1 divisions take precedence over their equivalent GS formations. *Horizontal dominance: temporal change of proportion type:* some individual early works are distinguished by a marked transition from an initial GS proportioning (in the earlier parts of a work) through to an exclusively 2: 1 and/or 1:1 proportioning in the later (often only the concluding) part of the composition.

Quantitative dominance of the Golden Section. In terms of the proportion most frequently created and deployed in proportional strategies, however, it is the *Golden Section* which predominates, and which may largely permeate or underpin a composition. This situation applies not only to the early works but also to a large proportion of Delius' mature compositions.

'*Systems*': the term refers to situations where proportioning techniques are applied at *two or more levels (systems)* for example, at bar and at 'crotchet reduction' levels⁹⁷ The same term is also applied in situations where two or more hierarchies (= systems) arise and develop separately from different positions along an events axis.

Part II:

Brief summaries of individual works from Delius' early Paris years will exemplify some of the above points as well as serving to introduce some additional facets of Delius' approach to proportion:

Paa Vidderne (On the Heights 1888) ⁹⁸

In a letter to Grieg dated 20 June 1888, Delius mentions that he had set Ibsen's long narrative

⁹⁷. In compound times a dotted crotchet is counted as equivalent to a simple crotchet – *i.e.* $q \bullet = q$

⁹⁸. *Complete Works* Vol. 14.

poem of 1859/60, *Paa Vidderne* (On the Heights), for tenor voice.⁹⁹ However, he subsequently revised the work as a melodrama whilst on holiday in Brittany, writing to Grieg from St Malo on 19 October, that he had finished *Paa Vidderne* 'some time ago'.¹⁰⁰

Overall Treatment of Paa Vidderne (Fig. 2.9.1): (Techniques used: *The Primary GS Division and Overlapping and/or Nesting of Patterns*). The primary S: L GS division marks a crucial turning point in the poem: the arrival of the mysterious hunter at the opening of Part IV.

(*Overlapping and/or Nesting of Patterns*): Individual movements among the total nine are grouped together in a series of seven patterns. Patterns are either switched CGSP's (see also Fig. 2.7 above) or ABA' 'tripartite' patterns (i.e. patterns where any subdivision of the B section is lacking or suppressed).

Movement IV (Techniques: *Type I Subdivision and the Lucas Series*): The movement uses the *Lucas Summation* series – a favourite element of Delius' mature as well as early compositions. The correct summation should be: 3, 4, 7, 11, 18, 29, 47, 76, 123 etc., but Delius often modifies individual values in the series, – thus '30' for '29' in the present example (Fig. 2.9.2).

Movement VI: (Techniques: *Type I Subdivision and the Fibonacci series. The Complete GS Pattern*). The movement employs type I subdivision using the *Fibonacci Series* (1, 2, 3, 5, 8, 13, 21, 34, 55 etc.). The series is likely less common in Delius than the Lucas summation, but where it occurs, often appears as a multiple of the basic series: x 2: 2, 4, 6, 10, 16, etc. or x 3: 3, 6, 9, 15 etc. (Fig. 2.9.3 no 2).

The movement constitutes Delius' first known CGSP after Delius' arrival in France and has the added distinction that the A' section is a musical reprise of the A section, these two 'matched' sections enclosing the contrasting music of the B sections. This type of pattern is frequently found in Delius' mature compositions (Fig. 2.9.3 no 4).

Movement VIII: (Techniques: *The GS hierarchy, the matched tripartite (ABA') pattern and Lucas series*): the layout of the movement is built on a 4- member GS hierarchy. The primary GS point marks the beginning of stanza 6 of section VIII of the poem, whilst the successive end points and subdivisions mark stanzas 1 – 5, 7, 9, 11 and 13. A separate single division positions the remaining stanzas 8, 10 and 12 (Fig. 2.9.4 a).¹⁰¹

99. Carley, 1983 p.19; Oelmann p.44.

100. Carley, *loc. cit.* p.25, Oelmann p. 51. There appears to be no information as to whether work on *Paa Vidderne* had actually been started in Leipzig.

101. A similar but later example of a GS hierarchy, whose end-points mark out successive stanza incipits may be found in *Sea Drift* (1903 or 1904). See Chapter 7 and Figure 7.1.

A tripartite pattern with matching A and A' sections spans the entire movement, (Fig. 2.9.4 b no 2) as does a GS symmetrical pattern (Fig. 2.9.4 b no 3 – cf. Fig. 2.2 no 1a above). This last also provides an example of the simple re-ordering of the Lucas-based products of GS division.

Movement IX: (Techniques: Transition from GS to 2: 1 proportion. Nesting and superimposition of patterns within the 'B' section of a parent pattern: Pairing of the products of subdivision either side of a GS point): The movement introduces the important concept of a transition from GS to 2:1 proportioning in the final stages of a work (the transition being here associated with a sense of 'attainment' and of elation at the conclusion of the poem). As with the overall design of this nine-movement work, this last movement uses a technique of overlaying or nesting of (here complete 2: 1) patterns, here all contained within the 'B' section of the parent pattern. This process is achieved by successive pairing-off of 2: 1 complements from the limbs either side of the GS point (Fig. 2.9.5 – see the braced sections above the axis and line no. 4 below the axis).

*String Quartet (1888)*¹⁰²

Only movements III and IV survive complete. Taken together, their internal layout is determined by a five-member S: L GS hierarchy with an additional L: S member. The common GS point occurs at the juncture of the two movements, whilst the end points mark the points of transition from one musical section to the next (Fig. 2.10).

The extreme precision of the GS proportions would appear to preclude any suggestion of any casual incidence of GS proportion occurring.¹⁰³ (Fig. 2.10).

¹⁰². *Complete Works*. Supplement to Vol. 32

¹⁰³. The precision is not maintained if 'dummy' GS points and GS divisions either side of the 'actual' GS point are selected, where the deviations in bars and from φ are found to be greater than with divisions arising from the 'actual' GS point, and the number of potential GS divisions identified is lower:

GS Point at Bar Line	No approx.GS Divns. located	Mean Dev. Bars	Mean Dev. from φ
107	1	0.79	0.034140
122	6	0.14	0.000274
140	2	0.70	0.005156
151	4	0.64	0.021966

[colours signify different levels of accuracy of GS assessments, higher to lower precision ranks are: red > green > pale blue-green].

Text: By Emanuel Geibel (1815 – 1884) untitled poem, numbered no 38 in *Lieder als Intermezzo* in *Jugendgedichte, Erstes Buch* and written about 1834 – 1835.¹⁰⁵ The song itself, written for voice and piano, was composed in 1888. Of the six stanzas, only the first three are set by Delius. In these, the poem invokes an ascent from the tree- and mountain tops, into the skies beyond. Stanzas two and three read:

*Es liegt ein trunkener Abendschein
Rothdämmernd über den Gipfeln,
Es jauchzen und wollen mit fröhlich sein
Die Vögel in allen Wipfeln.*

An enrapturing evening glow lies
Reddening over the mountain peaks,
The birds in the tree tops
Extol and would share in the joy.

*O könnt'ich steigen mit Jubelschall
Wie die Lerch'empor aus den Gründen,
Und droben den rosigen Himmel all
Mein Glück, mein Glück verkünden!*

Oh! That I could soar with ecstatic song
Upwards from below, like a lark,
And far above to the rosy firmament
Proclaim my delight!

The 'Ascent Formation': The song represents the first example of a strategy of carefully graded dynamics being used as a technique in increasing and releasing tension in the 'approach to' and 'return from' a climax, and where the numbers of bars (crotchet beats *etc.*) involved in the approach and return are usually in some definite proportional relationship to each other (1: 2, 2: 1, 1: 1 or GS). Movement towards, and return from, extreme sharp keys, is also sometimes used in an analogous procedure, either with or without an accompanying gradation of dynamics or tempo. As with the present song, there may also be a feeling of a symbolic or metaphorical 'ascent' and 'descent' involved in these processes, sometimes reflecting also an equivalent ascent depicted in the text.

*Climaxes and Climactic Points:*¹⁰⁶ A further innovation in the music is Delius' method of interlinking climaxes and 'climactic points' within the song by means of proportion, so that climaxes are all in direct or indirect proportional relationship, both with each other and other features of the movement.

^{104.} *Complete Works* Vol. 18a.

^{105.} Geibel, E. 1883.

^{106.} A 'climactic point' (indicated by a red triangle) refers to a climax involving a relatively short span of bars (e.g. 2– 3 bars) and contrasted from its neighbours by louder dynamics (*sff*, *ff*, *etc.*) or sometimes by dynamic gradations (*crescendo*, *etc.*). Diagrammatically both climax and climactic points are represented by a red triangle:

Four systems are used in the proportioning (Fig. 2.11):

A Preliminary Overall Partitioning by GS followed by Redistribution. The song divides initially into the vocal portion itself (*i.e.* the three stanzas of text totalling 28 bars), and the remainder, constituting 2 introductory bars plus a postlude of 15 bars solo piano. This GS proportion (28: 17 bars) is then irregularly subdivided and redistributed: 28: (15+ 2) bars.

A primary overall bisection at bar line 23 (22: 23 bars) marks the beginning of stanza 3 of the text and the start of the 'ascent' to the climax (bar lines 30 – 31).

A primary overall 2: 1 division, 30: 15 bars, with the 2: 1 point at bar line 31, marking the D major return on the last syllable of the voice part and the beginning of the extended piano postlude to the song. The primary division shares a common point with a subsequent GS division of 23: 15 bars, the 23-bar sector of which is subdivided 9: 14 bars. Although there is a degree of overlap between the three systems, the 2: 1 division with its subsequent associated divisions is largely concerned with the placement of the main climax (bar line 31) and subsidiary climaxes (bar lines 8 and 17) within the context of the work as a whole. For example, the 23-bar limb in the system, positions the subsidiary climactic points at bar lines 8 and 17 and also places them in a 9: 14 bar GS relationship with bar line 31.

A subsidiary type I GS system of 29 bars extends from bar 1 to the *fff* vocal climax of the song which follows bar line 30 – on the second syllable of *ver-kün-den* ('proclaim'). The 29 bars are subdivided regularly into Lucas numbers: 29 → 18: 11 → 11: 7 → 7: 4 bars. The subdivisions mark the start of stanzas 1 and 2, and the climactic point at bar line 8.

*Suite for Violin & Orchestra:*¹⁰⁷

Threlfall follows Philip Heseltine's dating of 1888 for this four-movement work.¹⁰⁸

The overall structure of the *Suite* is based on two main systems, both detectable *only in crotchet reduction*. This situation arises due to the overall proportioning having been originally applied to the crotchet conversion (and not to bars) and due to differences in time signature between the movements (Fig. 2.12.1).

^{107.} *Complete Works* Vol. 28.

^{108.} Threlfall 1977 p. 161.

1. The *Suite's* total crotchet number is first subdivided by GS: 1878 → 1161: 717 *i.e.* Movements I, III & IV: Movement II. The 1161 crotchets are then divided irregularly 345 (= Movt I) and 816 (= Movts III & IV). The 816 crotchets are further re-divided by GS giving 316: 500 crotchets (Movts III: IV). This is an early example of a proportioning cycle where GS alternates with other types of proportion as described above and in Fig. 2.8 no 3.

2. *Primary 1: 2 division*: The *Suite* subdivides further into a 1: 2 proportion (621: 1257 crotchets) at the XY juncture of Movt II, which is also the uppermost division of a two-member mixed hierarchy.

The Switched Complete GS Pattern: Movements III and IV: – Movement III is a double binary structure, the two parts (totalling 316 crotchets) being respectively initially subdivided into XY (188) and X'Y' (128 crotchets). Movement IV is ternary, the XY and X'Y' sections enclosing a central Z section.

The two movements are in S: L proportion with each other (316: 500 crotchets). Further proportioning within the total 816 crotchets is through the switching of the A' and B' components of a hypothetical complete GS pattern encompassing the two movements: A || B: B' ||: A' of 188 || 128: 204 ||: 296 crotchets becomes: A | B | A' | B' of 188 | 128 | 296 | 204 crotchets. Reversal of the A and B components in the above will also establish a CGSP: 128 || 188: 296 ||: 204 crotchets.

Śakuntala for Tenor and Orchestra:¹⁰⁹

The MS of this orchestral song is dated 1889¹¹⁰ and is a setting of a poem by Holger Drachmann (1846 –1908). On the (second) title page of the MS Delius had originally inscribed *Indische Schauspiel nach Kalidasa*¹¹¹ (later deleted) referring to Kālidāsa's play *Abhijñānaśākuntalam*, The Recognition of Śakuntalā.¹¹² The protagonist of Drachmann's poem is King Duṣyanta who here laments his separation from his lover, the maiden Śakuntalā. Kālidāsa's play became especially renowned during the nineteenth century, where in Paris, for example, it was performed in 1895, at the *Théâtre de l'Œuvre*, as *L'Anneau*

¹⁰⁹. *Complete Works* Vol. 15b.

¹¹⁰. Threlfall *ibid* p. 74.

¹¹¹. 'Indian play after Kalidasa' see Lowe 1974 p. 27 and p. 29.

¹¹². Rajan 1989.

de Sakuntala, with the artist Paul Sérusier playing a role in the performance^{113, 114}

The complete movement (90 bars) comprises 3 systems:

The 1: 1 bisection is made at the juncture of stanzas 2 and 3 of the text (bar line 46), and is further marked by a key shift from G[#] major to B major, and with the entry of a new theme or motive on the flutes (Fig. 2.13 no 1).

The 2: 1 system is more elaborately developed than the above 1: 1. It is a mixed hierarchy, with the uppermost 2: 1 division of 59: 31 bars, and three subsequent GS divisions.

Individual limbs of the system are subdivided by GS type I (Fig. 2.13 no 2).

The shared 2: 1 and GS points of the system mark the second of two major climaxes of the work, the present one occurring at bar line 60. The divisions show the climax successively in four different aspects of 'approach' and 'return' *i.e.* 59: 31, 37: 22, 14: 22 and 8: 13 bars. The last of these is the most immediately discernible and is of the 'ascent' type (Fig. 2.13 no 2 a) occurring also in the song with piano *O schneller mein Ross* (described above) and the orchestral piece *Idylle de Printemps* (see below).

In addition to this role of structuring the climax, individual end points mark the juncture of stanzas 1 and 2 and 2 and 3 of the text with their associated key changes.

The GS S: L 35: 55 bar primary division is the uppermost member of a Type II GS hierarchy of two divisions. (Fig. 2.13 no 3). The shared GS point of the system marks the highest point in the tonal scheme of *Sakuntala* – a shift from G[#] minor to G[#] major. End points and subdivisions in the system mark the key articulations:

G major/E flat major (bar line 10), E flat major/ G[#] minor (bar line 23), G[#] major /B major (bar line 46) and B flat major/G minor at (bar line 80). The end points of the topmost member in turn mark the G major opening and closure of the work.

This S: L system encompasses an additional metaphorical 'ascent' within *Sakuntala*, but this

113. Guicheteau 1976 p. 172.

114. A 41- bar sketch by Delius for violin and piano entitled *Vasantasena* (under auction in March 1998 – thompsonian.info/delius.html – accessed 29.03.13), *Vasantasena* being the name of a main character in another classic Indian drama *Mrcchakatika* (The Little Clay Cart) of Śūdraka. The play was performed at the Théâtre de l'Œuvre as *Le Chariot de terre cuite* in January 1895, with Paul Sérusier again in the cast list (Guicheteau, *ibid.* p. 171). Several French translations of the play were published during the 19th century.

time the ascent is through key rather than by change of dynamic or tempi. The goal to which the 'ascent' aspires would be the Himalayan peaks referred to in stanza 2 of Drachmann's poem:

<i>Du ewiger Himalaya</i>	<i>Eternal Himalayas</i>
<i>Du hebst deine Stirn-</i>	<i>With your brow raised</i>
<i>zum Himmel auf.</i>	<i>Heavenwards</i>
<i>Was spület um meine Füße</i>	<i>Why do your springs</i>
<i>Heute mir Deiner Quellen Lauf?</i>	<i>Swirl around my feet today?</i>
<i>Was rauschen die duftigen Wellen</i>	<i>Why do the gentle waves rush,</i>
<i>herauf, herauf</i>	<i>Headlong,</i>
<i>Erinnerungsvoll,</i>	<i>Full of memories,</i>
<i>Vorüber so still?-</i>	<i>yet so quietly?</i>
<i>Was schwebt vor mein Blick,-</i>	<i>What is it that hovers in my sight,</i>
<i>das nicht schwinden will?</i>	<i>yet never fades?</i>
<i>Sakuntala!</i>	<i>Sakuntala!</i>

As will be shown, the mountains of Norway, together with visionary depictions of mountain peaks and recurrent experiences of metaphorical 'ascent and descent' in his music, appear to have held an especial significance for Delius.¹¹⁵ In the present case, (following the S: L GS structuring), the 'steep' ascent is followed by a longer and slower descent. The key changes are G major, E flat major, G[#] minor (at *Du ewiger Himalaya*), G[#] major (at *Erinnerungsvoll*), B major, E flat major, G minor (the 2: 1 climax), B flat major, G minor and G major.

*Idylle de Printemps. Morceau Symphonique pour Orchestre:*¹¹⁶

This movement, dated 1889,¹¹⁷ is a further example of Delius' technique of placing dynamic climaxes within the overall context of a work, and also of focusing on, and interlinking individual climaxes, by means of proportion. The *Idylle* offers in addition an example of two different systems of proportion in a work which operate in a separate manner, and are assigned different functions.

Primary GS division with subdivisions forming a Type I GS pattern: A type I GS pattern spans the entire work: (92: 151 → 92: (93: 58 bars Fig. 2.14 nos 3 a and 3 b). The outer sections of this pattern, 92: 58 bars, are matched musically and contrast with the central 'B' section, so that

¹¹⁵. See Chapter 12.

¹¹⁶. *Complete Works* Vol. 21c.

¹¹⁷. Threlfall 1986 pp 70 – 71.

the proportional pattern, ABA', and the ternary musical form, XYX', converge. A parallel example occurs in Movt I of the *Florida Suite* (see Chapter 3 Fig. 3.3.3). Note that no climaxes or climactic points (red triangles) are included in the system.

2:1 Mixed Hierarchy: The hierarchy focuses primarily on the γ - climax at the 2: 1 point. The 131: 83 bar GS division and subdivisions then link successively the α and γ climaxes, the α , β and γ climaxes and the α , α' and β climaxes. The δ – climax is not included in this scheme. The proportioning of local ascent structures is shown in Fig. 2.14 no 4.

Suite de Trois Morceaux Caractéristiques pour Orchestre:¹¹⁸

Dates: I (*La Quadroone*): 1889. II (*Scherzo*) and III (*Marche Caprice*): 1890. No III, (*Marche Caprice*), is based on an earlier version in the *Petite Suite* 'No I' (see Chapter 3) which is dated May 1889.

The *Marche Caprice* has been separated in the publication of the *Complete Works* from the two remaining movements of the *Suite* as below. Threlfall lists all three together as a single work under the above title, however.¹¹⁹

Proportionally the three movements also constitute a single work:

The opening and closing bars of the *Suite* are in GS proportion (bars or crotchet beats).

Patterns 2, 3 and 4 traverse more than a single movement (where the axis is in crotchets).

Movements I & III both use the Lucas series. Thus, there are *remote correspondences* established between these two movements. Also, pattern 6 (movement III – 74||218||:46 sets up similar remote correspondence. No overall proportional relationship was found between I and III, however, nor between the bar numbers or crotchet beat numbers of each of the three movements (Fig. 2.15.1 and Fig. 2.15.2)

The *Suite* marks a significant investigation into pattern formation – especially the case of incorporating secondary patterns into the 'B' sections of patterns higher in the hierarchy. Instances of Type I primary proportioning are comparatively rare – but Type I primary

118. *Complete Works* Vol. 21c (no 1: *La Quadroone, une Rhapsodie floridienne* and no II: *Scherzo*) and Vol. 21a (no III: *Marche Caprice*).

119. Threlfall 1986 p. 74.

divisions and primary pattern occur in the *Marche Caprice*. Two different primary patterns occur in the *Scherzo* (patterns 5 & 6).

The central variations of the *Marche* are based on a theme in the Dorian mode initially on D and harmonized in d minor (cf. *Brigg Fair*).

As with the *Suite for Violin & Orchestra*, the current work has been proportioned initially in *crotchets beats*, the underlying differences in proportion between the bar and crotchet systems being due to the 6/8-time signature of the *Scherzo* reducing to only two crotchets per bar (*i.e.* let $q. + q. = q + q$) in contrast to four crotchets in the outer movements).

Summer Evening from *Three Symphonic Poems*:¹²⁰

Summer Evening, (Fig. 2.16) as with *Idylle de Printemps* above, employs two basic systems of proportion in its design: the first is largely concerned with the deployment and configuration of the three climaxes (α , β and δ) and which, to a large extent, is carried out *at bar level*. The second, *which is only revealed at the crotchet level*, relates to the overall proportioning of the movement, as well as to the additional configuration of the three climaxes:

Bar Level:

The positioning of climaxes α and β is *via* a single L: S proportion in each case; positioning of the δ climax is by construction of a three-member L: S mixed hierarchy.

Crotchet Level:

A *primary 1:1 division*, spans the entire work and divides it at the β climax (at the A flat and G major juncture).

A *primary 2: 1 division*, also spans the entire work, but divides it at the D major return of the opening section (X' at bar line 54).

A *primary GS division*, encompasses the entire work, and divides it at the F sharp major/D flat major juncture (bar line 29).

The three primary divisions of *Summer Evening* are therefore all shown only at the *crotchet reduction level* and are all concerned with, *inter alia*, the marking out of successive tonalities within the work.

¹²⁰. *Complete Works* Vol. 21a.

The *primary 1: 1 division* remains *solitary* and engenders no system of subdivision.

The *2: 1 system/3-member mixed hierarchy* (with the common point at bar line 36) plays the largest role in the proportioning of *Summer Evening*, with the second member of the hierarchy (323 crotchets, dividing into a *symmetrical GS pattern* 122: 201 and 200: 123 crotchets) defining the overall shape of the work.

The *primary GS division*, spanning all 74 bars of *Summer Evening*, divides the work (S: L – 140: 229 beats) at the most distant tonality (D flat major) from the basic tonalities of the Y section (G major) and of the movement as a whole (D major). As with *Sakuntala*, there is some sense of ascent and descent within the key progression of the work. Thus keys preceding the GS point are successively D major, G major and F sharp major; those following the GS point are D flat major, A flat major, G Major B major and D major.

The systems at bar and at crotchet levels here act partly *synergistically*, as, for example, by emphasizing the *same musical event* in their respective configurations; they may also act *independently*, and in a *complementary* manner, each positioning different compositional components within the overall musical structure.

*Three Songs to Words by Shelley:*¹²¹

The *Three Songs to Words by Shelley* (1891) are an additional example of proportioning having been applied to the same two measurement scales: *bars* and *crotchet beats*. The differences obtained between these two levels arise from the 6/8 duple time of Song I which contributes only half the number of crotchet beats (where q. = q) compared to numbers of bars relative to Songs II and III (which are both in common time – Figures 2.17.1 and 2.17.2. The same technique was pointed out for the *Suite for Violin & Orchestra*, and the *Suite de Trois Morceaux Caractéristiques pour Orchestre* (above).

At bar level: the climax of Song II (the β - climax) falls at the overall L: S GS point of the work (Fig. 2.17.1 no 2), this primary GS division itself remaining solitary. A two-member mixed set whose uppermost member is a primary 2: 1 division marks the junctures of Songs II and III, and (by GS subdivision) of Songs I and II (Fig.2.17.1 no 3).

121. Delius (1969) *A Book of Songs: in two Sets*.

At crotchet-reduction level: An overall ABA' pattern becomes apparent 155||188||: 256 q's where Songs I and III (A and A') are now in GS proportion (and where, now at the crotchet level, the above GS proportion between bar numbers in Songs I and II, is lost – Fig. 2.17.2 no 3). A single division, whose prior end point positions the α climax (Song I) and whose L: S GS point marks the β climax (Song II), extends to the end of Song III (Fig. 2.17.2 no 4). A second GS division has its S: L GS point at the α - climax. (Fig. 2.17.2 no 5).

Fig. 2.17.2 shows the individual contributions which proportioning in bars (no 2 – black lines) and in crotchets (nos 3, 4, and 5 – red lines) make to the overall design. Since there are no *within-song* changes of time signature, the same proportioning scheme will apply to the individual songs, whether at bar- or at crotchet level (Fig. 2.17.2 no 6 – purple lines).

* * * * *

Chapter 3 is laid out in two sections: *Part I* deals with those Leipzig and early Paris works in which various difficulties emerge, such as problems of dating, the correct disposition of movements, *etc.* These works, after following any necessary re-constitution of movements, offer a further useful source in elucidating Delius' proportioning methods (*see* Appendix II large diagrams Figures 3.1 to 3.6). *Part II* is a continuation of Chapter II, Part I, and resumes with a description of some additional features of proportion found in the works under discussion.

Part I:

*Pensées Mélodieuses No 2*¹²²

Although currently dated as belonging to the Florida period,¹²³ this short piano piece displays typical proportioning features of the works of Delius' Leipzig or early Paris years, c.1887–1891 (Fig. 3.1):

A GS set (here three-membered) with a consequent GS patterning.¹²⁴

A secondary *GS symmetrical pattern* involved in the placement and linking of two separate climaxes.¹²⁵

The presence of additional remote GS comparisons.¹²⁶

Delius' design suggests two alternative primary patterns:

A primary 1: 1 pattern where the A' sector repeats the music of the A sector but in reverse order *i.e.* A: A' = VW: W'V' and with the B sector subdividing by GS: 22 || 19: 31 || 22 bars.

A primary *Complete Golden Section Pattern* (CGSP): 13 || 19: 31 || :22 bars.

In either pattern, the B section (19: 31 bars) is further partitioned into a CGSP, with the two outer and two inner sections being in Lucas and Fibonacci pairings respectively: 11 || 8: 13 || : 18 bars. Along with the Movements VIII and IX of *Paa Vidderne* (1888),¹²⁷ this piece is an early instance of a 'pattern-within-pattern' formation. It is also, (in the first of the above patterns) an early example of a 1: 1 pattern (*i.e.* where the outer sections are of equal length). The date given on the existing manuscript would most likely refer therefore to the date of an original

122. *Complete Works* Vol. 33.

123. 'June 10/85' in Threlfall 1986, p. 114.

124. Figure 3. 1 numbers 2 and 3.

125. Figure 3.1 number 4.

126. Figure 3.1 number 5.

127. *See* Chapter 2 Figures 2.9.7 and 2.9.8.

composition, now lost, which subsequently underwent revision in Leipzig or Paris

Hiawatha – Tone Poem for Orchestra ¹²⁹

The manuscript full score is dated 'Januar 1888' Lowe suggesting the work may have been performed in Leipzig either before Delius left for Paris in the Spring of 1888, or when he revisited Leipzig in the Summer of 1890. Also, the composer may have started a reconstruction of *Hiawatha* for performance by August Manns in Leipzig, but in the event, he sent him the revised *Florida Suite* ¹³⁰

The basic shape of *Hiawatha* (after the removal of two short linking passages interpolated in the published version in the *Complete Works* to create a performing edition – see Fig 3.2.1) indicates that Delius, at some stage between April 1888 and 1889, had intended to reconstruct the score as a complete GS pattern: he would have therefore himself removed the missing pages from the manuscript score, but then abandoned the idea of any re-composition, possibly in favour of reshaping the *Florida Suite* instead (Fig. 3.3). The detailed GS and 1: 1 proportioning of the final three stages of *Hiawatha* confirms that, whilst still in Leipzig and before his arrival in Paris, Delius must have already been exposed to, and was intent on, the idea of a mathematical structuring of his compositions (Fig 3.2.2). Like its companion work the *Florida Suite*, there is no sign of any 2: 1 proportioning being used in *Hiawatha*.

¹³¹

Florida: Suite for Orchestra

Two separate systems of proportion are used – the first based on proportioning using *bars* as units, the second based on proportioning of the *total crotchet beats*. In this latter case, the various changes of time signature within Movements I, II and IV of the Suite have enabled a substantial system of proportioning to be applied at the crotchet level which differs from, and is largely complementary to, the one at bar level. Apart from three significant instances of 1: 1 proportioning, the *Florida Suite* is constructed entirely on the Golden Section, the 2: 1 proportion being absent.

The Overall Proportioning of the Work. The Suite is binary in outline, with each part consisting of an initial extended movement which includes a dance-like section, followed by a shorter movement of a more lyrical or introspective nature.

Axis in bars

The Primary Division. The initial 35 introductory bars of Movement I are excluded from the proportioning scheme. For the remaining 795 bars (bar 36 to the end of the Suite), the GS L: S point marks the start of the *più animato*, at bar 527 in movement III. The corresponding S: L

128. Regarding Delius' practice in dating his manuscripts Threlfall writes: *Delius usually dated his MSS with the original date of composition, which thus often found its way to the printed copies* (Threlfall *ibid.* p. 11).

129. *Complete Works* Supplementary Vol. 6.

130. See Lowe (1974) pp 17 – 19.

131. *Complete Works* Vol. 20.

point marks the juncture between movements I and II at bar line 340. The division is therefore an example of a *Symmetrical GS Pattern* (Fig. 3.3.1 no 2; see also Fig. 2.2 no 1a). *Additional Measurements from the Primary Division GS Points:* Additional three and two-member GS sets are constructed from the above two main GS points, their end points marking various junctures and subdivisions within the Suite (Fig. 3.3.1 no 2).

The axis in crotchet counts

Proportioning at the crotchet level focuses largely on the binary structure of the Suite, mentioned above, and on the placement of the main dynamic climax of the Suite in bar 583/crotchet 1701 (Fig. 3.3.2):

The *Primary 1: 1 Division* divides the Suite into two parts¹³² at the juncture of II and III (Fig. 3.3.2 no 2).

The *Primary GS Division* spans the same sector as the primary division in bars (above) and shares the same GS point with it (at bar line 527/after crotchet 1587).

Two-Member GS Hierarchy – 1: This forms a CGSP with GS point at the bar 583/crotchet 1701 (climax β – Fig. 3.3.2 no 4).

Two-Member GS Hierarchy – 2. This forms a CGSP with GS point at the juncture of II and III, (and forming, therefore, a mixed hierarchy with the primary 1: 1 division above – Fig. 3.3.2 no 5).

Proportioning within Individual Movements. Note that all supporting diagrams show event axes in the crotchet reduction scale only.

I Daybreak: Primary 1: 1 Division. The opening movement reflects the binary structure of the Suite as a whole and is bisected at bar line 116/crotchet count 461 at the start the 2/4 *Allegretto* section (sections T and U in Fig. 3.3.3). This bisection is only possible at the crotchet reduction level. Further subdivision (by GS) proceeds independently within each of these two sections.

II By the River. Since the movement is in 12/8 time throughout, the same proportioning scheme applies both at 'bar' and 'crotchet reduction' levels. Two patterns are present: one symmetrical and creating a ternary musical design 'XYX', the second a two-member GS hierarchy. In the latter, the procedure is demonstrated of the successive 'partitioning off' of segments one from either side of the GS point of an existing GS division, and which are in GS proportion with each other (Fig. 3.3.5 no 4; see also Fig. 2.3 no 2).

III Sunset: Primary GS Division. As with the overall *Two-Member GS Hierarchy* – described above, the primary GS division of Movement III has its (L: S) GS point at the bar 583/crotchet 1701 climax.

Secondary GS division: the main (S: L) GS point, together with the GS point subdividing the longer (434 crotchet) limb of the division, mark respectively the beginning and conclusion of the central 'YZY' section.

Thus, this is a further example of a Type I GS pattern with matching outer sections (A and A' / X and X'). Apart from the 68: 106 crotchet (= 34: 53 bars) division, all the remaining proportions illustrated occur only in crotchet reduction (Fig. 3.3.4).

IV At Night: Primary GS Division/CGSP. The L: S GS point marks the juncture of the 12/8

132. The deviation in this case (± 6.5 crotchets) is unusually high, however.

passage (the material is from Movement II) with the return to $\frac{3}{4}$ time (bar line 767, 2284 crotchets). Further proportioning is carried out either side of the point. As with Movements I and III, the proportioning of Movement IV only applies at the crotchet count level (Fig. 3.3.5 nos 5 – 7).

Dating of the Florida Suite

If we were to assume Delius had learned his techniques of GS proportioning only after arriving in Paris in the Spring of 1888, then, from the above analyses, all movements of the original *Suite* as composed in Leipzig, would have had to have been revised in Paris.

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However, the main manuscript sources of the Florida Suite are listed as follows:

MS (a) Autograph full score, original version Grainger Museum [. .] dated Fritz Delius 1887. Now defective pp 57–82 (comprising the entire third movement except for the first and last pages thereof) having been removed.

(b) Autograph full score, revised version, third movement only, Grainger Museum, pp 34 n.d. But signed. Headed II [meaning presumably the current Movt. III].

(c) Copy, movements 1, 2, & 4 original version and 3 revised version in the hand of George Brownfoot. . . (used as the basis for engraving the work for publication) – pp 124 – 125).

To which is added the note: Date: 1887 on orig. MS [. .] In 1889 two movements (unspecified) were revised, of which only 'Le coucher du Soleil – Pastorale (tiré de la Suite Florida)' survives [. .].

If Delius had learned his proportioning techniques whilst in Paris, this 'original autograph' must in turn have been a revision of a (now entirely lost) Leipzig score. However, there seems to be no basis for such a conclusion: scholarly analysis accepts that the existing autograph full score physically dates from 1887 and was indeed written whilst Delius was in Leipzig.¹³⁴ In addition, Delius' use of GS and 1:1 proportioning in his 1888 Leipzig work *Hiawatha* (above) also offers sound testimony of Delius' acquisition of his proportioning strategies in Leipzig, and prior to his move to Paris.

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Two Early Suites for Medium Orchestra

These two orchestral suites date respectively from 1889 and 1890. Both works had been originally entitled *Petite Suite d'Orchestre*, but the second was subsequently re-named *Suite*

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for Orchester [sic.] strings, W wind and horns.

Several factors indicate that the two works are connected with one another, and most likely were conceived as a continuous whole. This would follow from the exact 2: 1 proportional relationship between the two, the proportion of 5: 3 movements (of a total 8 movements), as

133. Threlfall *ibid.* pp 124 – 125.

134. See Threlfall 1974; Threlfall 1977 124 – 125; Threlfall 1986 69 and Threlfall 1990 142 – 146. Additional research, such as forensic ink analysis, might help distinguish with more precision Delius' Leipzig manuscripts from his early Paris ones.

135. *Complete Works* Supplementary Volume 2.

136. See Threlfall (1986) pp 72 – 73 and Lowe (1974) pp 161 – 162 for descriptions of respectively the *First* and *Second Suites*.

well as 1: 1 and 2: 1 designs spanning the two Suites (Fig 3.4.1).

Horizontal Transition from GS to 1: 1 Proportioning. The eight movements show a marked transition from GS through 2: 1 towards a 1: 1 partitioning. GS proportioning is largely confined to movements I – V where it only appears at the crotchet reduction level. Note that pattern 4 is in respectively precise 2: 1 and precise GS proportion at bar and crotchet levels. There are no 1:1 indications in the first five movements but three precise 1: 2 patterns occur (Fig 3.4.1 and Fig 3.4.2). In the Second Suite symmetrical patterns are well developed in each of the three movements (Fig 3.4.3).

Vertical Hierarchy. There is a primary overall 1: 1 pattern but no 1: 1 primary division. There is no primary overall 1: 2 pattern, but there is a precise 2: 1 primary division. Note the complete absence of GS in the upper levels of the hierarchy. It follows that in both a 'forward horizontal' and 'ascending vertical' direction there is a progression from GS through 2: 1 towards symmetrical design (Figures 3.4.1, 3.4.2 and 3.4.3).

Seven Norwegian Songs

As with the *Five Norwegian Songs* (1888), the Primary Pattern is referable to a complete GS pattern – but with 'switched' (reversed) BB' (or AA') components (Fig. 3.5.1). This design is only observable when the songs are placed in the order of the original 1892 Augener publication (Augener edition no 9489). Threlfall lists the songs in this same original order in

his *Catalogue*¹³⁹ whilst in the *Complete Works* Vol 19 the order adopted is that of the 2nd edition

from Tischer & Jagenberg 1910.¹⁴⁰ In this latter, the pattern described above is lost, as is the relationship with the *Five Norwegian Songs*. Also, the original grading of the individual songs, from simple strophic towards more complex designs, is disrupted.¹⁴¹ One reason for the 1910 ordering (and possibly following an editorial request from Tischer & Jagenberg) would be to place the two most popular songs at the beginning of the cycle. The resulting overall single GS division of the rearranged order is not typical of Delius, however.

Five Settings from Tennyson's *Maud*

Rachel Lowe writes of these settings for tenor and orchestra: 'The manuscript was found

137. Of the second Suite, Threlfall (1977) p. 130 comments on the 'widely different key' of the third movement (E major) compared to the two preceding ones (G minor). This key sequence lies more plausibly within that of the combined Suites, the G minor of Movements VI and VII 'balancing' the G major of Movements II and III, whilst the closing movements of each individual Suite are in E minor and E major respectively (Figs 3.4.1, 3.4.2 & 3.4.3).

138. *Edition used: A Book of Songs: in Two Sets* (Delius 1969). See also *Complete Works* Vol. 19.

139. Threlfall 1977 p.95.

140. Threlfall, 1990 p. 131.

141. Regarding details of within-song proportioning, some of the earlier-placed songs in the 1892 edition (numbers I, II and IV) are brief, strophic and of a single mood, and show little opportunity for applying any proportioning technique. Of the remaining, song III, and in particular songs V – VII display more potential in this respect. Number VII abandons the use of any overall (primary) pattern or of hierarchical formations, and adopts instead a method of setting up pairs of remote GS complements, [or tripartite patterns cf. above] which extend throughout the movement and impart a sense of overall cohesion.

142. *Complete Works* Vol. 16.

unbound [.....] The work comprises five of the Tennyson *Maud* poems. It is a beautifully written manuscript with the ruled bar-lines in ink. Occasional dynamics have remained in pencil, but, except for a few lightly pencilled additions in harp and woodwind in 'Come into the Garden, Maud', there are no alterations or deletions and no other markings [....] Delius has paginated each poem afresh from page one, and has left no indication of the order in which he intended them to be sung.¹⁴³

Differing proposals on ordering of the movements have been made. With the numbering of each setting according to the order the relevant lines appear in *Maud* Part I¹⁴⁴ these are:

Heseltine: V, III, I, II, IV.¹⁴⁵

Beecham: II, I, III, IV, V.¹⁴⁶

Manuscript order found by Lowe in February 1965: V, II, III, IV, I¹⁴⁷
 Printing order in *Complete Works* Vol 16: II, I, III, IV, V.
 Order established in current analysis: I, II, III, IV, V.

After testing the five movements in various sequences, it became clear that the only possible

primary division was 1: 2¹⁴⁸ there being no overall bisection or GS division possible. Furthermore, the complete 2: 1 pattern of *Come into the garden, Maud* immediately suggested that this extended movement should be placed at the end of the work (Fig. 3.6.1)¹⁴⁹cf. *Paa Vidderne* movement IX, *Irmelin* Act III, where a 2: 1 pattern symbolically succeeds the GS proportioning prevalent in earlier stages of these works).

With the ordering of the five songs provisionally placed in the same order of their texts in Tennyson's *Maud*, the positioning of six climactic points/climaxes (assigned α to λ in Fig. 3.6.1 and 3.6.2) was assessed. It was found that *Maud* offered a further example of Delius' meticulous placing of dynamic climaxes, and of the establishment of an extensive network of intricate GS inter-relationships among successive climaxes and various other features of a work. Thus the upper division of the four-member GS hierarchy shown (Fig. 3.6.2 no 2) links three widely-spaced climaxes (α , δ , and λ) whilst the remaining members connect, for example, events within Songs I – III with the 2: 1 pattern of Song V. A further (separate) GS division shows that climactic points/climaxes α , β , γ and ε (Fig. 6.2.2 no 3) have been positioned in a *Symmetrical GS Pattern viz.* at the first end-point, the two main GS points, and the second end point of the division respectively, thus confirming the sequence of songs here

must be I, II and III.¹⁵⁰

143. Lowe 1974 p. 31.

144. i.e. I – *I was walking a mile* II – *Birds in the high Hall-garden* III – *Go not, happy day* IV – *Rivulet crossing* V – *Come into the garden, Maud*. These are respectively from sections IX, XII, XVII, XXI and XXII of *Maud: Part I* – see Tennyson (1855).

145. Heseltine (1953) p. 200.

146. Beecham (1975) pp 59 – 60.

147. Lowe *ibid.* p. 31

148. i.e. the groupings must be either (I + II): (III + IV + V) or (III + IV + V): (I + II) comprising 151: 300 or 300: 151 bars respectively.

149. i.e. the two groupings are confirmed to be in the order (I + II): (III + IV + V).

150. i.e. the overall order of the songs can only be I, II, III, IV, and V.

Part II:

Some additional aspects of Delius' proportioning strategies. Following the brief survey of proportioning stratagems in Delius' Leipzig and early Paris works, details of a number of additional techniques involved may now be mentioned.¹⁵¹

Summary of the general proportioning process in composition. A web of proportional inter-connections is gradually built up, being initiated through the precise positioning of the *third* of *three* individual selected musical *events* to form a *proportion* (1: 1, 2: 1 or GS)¹⁵² – & which is graphically depicted as a *division* – (Fig. 2.1. nos 2 & 3). Successive repetitions of this process create a *network of proportions*– the 'events' participating in this process are typically *delimiters* (*separators*), *junctures*¹⁵³ and *climaxes* (or more precisely, *the point of maximum intensity* of a climax – Fig. 2.1. no 1 and Fig. 2.2 nos 2 a. and 2 b.). Individual divisions may be gathered into *hierarchies* which may give rise, in turn, to various *hierarchies of patterns*. Where a pattern dominates or spans (or nearly spans) an entire movement or work, that movement or work is characterized by the type of pattern involved, thus for instance, the 'form' of a work may be defined as a *Complete Golden Section Pattern*.

Where all three main proportions (1:1, 2: 1 & GS) occur together, the 1: 1 and 2: 1 divisions and patterns usually take a higher position in any hierarchy than GS. In terms of quantity and presence, however, it is generally GS which predominates in a composition.

A significant property of Delius' 'web of inter-connected proportions' is that, particularly in the case of the Golden Section, *remote correspondences* are set up, between different parts of a composition, so that, (by virtue of their being in GS proportion), each part 'reflects' or 'compliments' its distant counterpart in a work.

Superimposed systems of proportion. (a) *Separate systems are measured in bars and in crotchet counts.*¹⁵⁴ Each system contains its own unique proportioning features. The two systems tend to act, therefore, to a larger degree, in a complementary manner. Sometimes, also, they may act partly in a synergistic manner, contributing, for example, to the same ascent formation at bar- and at crotchet-level¹⁵⁵ (b) *Similar to (a) but separate systems are both measured in bars.* An example is found in *Idylle de Printemps* (Fig. 2.14) where one of two systems is involved in the deployment of successive climaxes in an overall GS association, whilst the second establishes an overall inclusive GS pattern, and at the same time, positions individual delimiters. (c) A work may undergo an initial partitioning by GS, followed by further division and redistribution of the products. Completely new (GS and other) designs are then applied over the total span of this rearranged order. Details of the first stage of this procedure (from the *Suite for Violin and Orchestra*) are given in Fig. 2.8 no 1, and subsequent

151. Continued from Chapter 2 pp 2 – 3.

152 . *i.e.* once the placement of any two events has been decided, the position of the third must be then 'fixed' to obtain an exact proportional relationship between the three events.

153 . *Delimiters (separators)* are the dividing point between separate sections of music (defined by key or thematic changes, or, in word settings, by the introduction of a new text stanza). *Juncture* refers to the dividing point between two contiguous movements.

154 . Examples are: *Summer Evening* (Fig. 2.16); *Three Songs to Words by Shelley* (Fig. 2.16.1 & 2.16.2); *Florida Suite* (Fig. 3.19.1 & 3.19.2) and *Petite Suite d'Orchestre "No 1"* (Fig. 3.4.2). Note also that in the *Two Pieces for Small Orchestra* the overall work is reduced to *quavers* (rather than to *crotchets*) before any proportioning is applied. In that case, however, there seems little evidence of any alternative proportioning having been applied at bar level.

155. For example, see *Summer Evening*, Fig. 2.16.

proportioning stages for the same work are shown in Figs 2.12.1 and 2.12.2¹⁵⁶

(d) *Overlying Symmetrical and Asymmetrical Designs*. Clear symmetrical patterns occur both in the *Florida Suite* Movt II and *Paa Vidderne* Movts I and III, where in each movement, a musically contrasting central section is flanked by outer sections which are of equal length. Also, in two of these movements, a primary GS division divides the music either at the beginning of the central section (*Florida Suite* II) or at its closure (*Paa Vidderne* III). In all three movements there is some additional GS elaboration.¹⁵⁷

Arrangement and groupings of patterns. Where multiple patterns occur, these may be grouped into a *hierarchy of nested patterns* either sharing a common point (Figures 2.3 no 3, 2.4 & 2.5),¹⁵⁸ or without any common point.¹⁵⁹ A particular case of nested-pattern formation occurs where individual patterns are constructed within the 'B' sections of those occurring higher in a hierarchy.¹⁶⁰ An additional arrangement occurs when patterns may be laid out more discursively, where they may overlap with one another, but are not truly 'nested' and do not share in any communal point.¹⁶¹

Tripartite patterns and 'remote correspondences'. The tripartite (ABA') pattern whose A and A' sections are musically *unmatched* (i.e. where the corresponding musical pattern is represented as XYZ) is essentially the same as a *remote correspondence* (A: A') but with the difference that, in the latter, the intervening 'B' sector has been (temporarily) discounted. This second is used to illustrate more clearly situations where compliments of a proportion are placed remotely from one another.¹⁶² However, the two terms have otherwise largely been used interchangeably in the above summaries. Where the tripartite pattern has outer sections which are *musically matched* (XYX'), this provides a stronger or more immediate sense of cohesion between the ABA' proportional and musical ternary patterns.¹⁶³

Transition from GS to 2: 1 and 1: 1 proportion: Several earlier Paris works from *Paa Vidderne* to Delius' first opera *Irmelin* display a marked transition during their course from GS (found earlier in a work, and often predominating up to its last stages), to 2: 1 or 1: 1 proportion, the two divisions occurring sometimes together in the closing part of a work. Two compositions, the *Petite Suite* and the song cycle *Maud*, (the movements in the order recommended above), also show this same transformation.¹⁶⁴

156. The song *O schneller mein Roß* – Fig. 2.11 – provides an additional example of similar procedures.

157. See *Paa Vidderne* Figs 2.9.2. and 2.9.4, and *Florida Suite* Fig. 3.3.5 no 1. This combination of asymmetrical and symmetrical design plays an important role in some of Delius' later works such as *A Mass of Life* (1905), where the apparent 'arch formation' of Part I has not been constructed through any prior regular symmetrical subdivision, but rather has arisen from intricate GS patterning (see Chapter 7).

158. i.e. they are derived from a GS, 2: 1 or mixed set of divisions. For examples see *Paa Vidderne* (Figs 2.8.7 a, 2.8.8) or the early *String Quartet* (Fig. 2.10).

159. For instance, the *Petite Suite* (Figs 3.4.1 and 3.4.2).

160. Examples include: *Paa Vidderne* (Fig 2.9.7a & 2.9.8) *Suite de Trois Morceaux Caractéristiques* (Figs 2.15.1 and 2.15.2).

161. For instance, see *Paa Vidderne* (Figs 2.9.1, 2.9.2 and 2.9.3) and *Seven Songs from the Norwegian VII* (not illustrated).

162. For example, see *Paa Vidderne* Fig. 2.9.2 no 3 b & 2.9.3 no 4.

163. For this latter situation see, for example, *Idylle de Printemps* Fig. 2.14 no 3 b.

164. For the concluding 2: 1 proportioning in *Paa Vidderne* see Movt IX which introduces the *Complete 2: 1 Pattern* (Fig. 2.9.8). The final song of the *Maud* cycle, the extended setting of *Come into the Garden Maud*, is also cast in this same pattern, (Fig. 3.6.1 & 3.6.2) as is the entire third act of *Irmelin* (Chapter 4 Fig.4.7.).

A significant topic raised in Chapter 1 hinges on the plausibility or otherwise of data presented as evidence for the use of the Golden Section in musical composition. This applies particularly to composers of the Baroque and Classical periods (where there appears to be little written evidence of the proportion having been consciously applied), as well as to later composers such as Delius, who made neither claims nor statements about GS nor any other technical aspect of his music. One useful approach in solving such problems of proportion, is to plot, initially in the form of a histogram, all the data regarded as being potential estimates of GS obtained in any analysis or any series of analyses. Estimates might range, for example between 0.580000 and 0.650000. In Figure 3.7 results have been plotted for a total of 312 estimates of ϕ drawn from the Leipzig and early Paris works under discussion, and which have been individually listed in the diagrams presented. One immediate feature of the histogram shown is that it does not follow the normal distribution (shown as a black bell-shaped curve above the histogram),¹⁶⁵ but is instead 'squeezed laterally' to form a narrower and more highly-peaked curve than the normal distribution.¹⁶⁶ One reason this might happen is that values towards the mid-point of the range have been *deliberately calculated*, and are in a *relative excess*, so that the appearance and shape of the histogram are affected. A second significant property of the histogram is that the *mean* and *median*¹⁶⁷ values of the distribution of the 312 estimates are in very close proximity to ϕ itself, that of the median (0.617647) differing by a value of only- 0.000387 (about 0.06%) from ϕ . Although more work is needed to confirm this, the present results, even if standing alone, would strongly indicate Delius' conscious use of the Golden Section.¹⁶⁸

* * * * *

165. To conform to the normal distribution, the top LH or RH 'corners' of individual bars in the histogram should be *touching* the curve above *i.e.* the total area below the curve should be 'filled' with the dark-green bars.

166. A phenomenon technically known as *leptokurtosis*.

167. The median value is the value at which 50% of all the values occur *below* that value, and 50% *above*. The median value is often a more appropriate statistic than the mean when dealing with non-normal distributions.

168. Similarly, the presence of complex GS-based patterns, and of large-scale GS designs spanning such works as *A Mass of Life* must be attributed to a conscious, premeditated use of proportion rather than to any manifestation of an unconscious faculty in Delius.

Chapter 4: Two Hermetic Operas

I – Alchemy and Proportion in *Irmelin*

Compared to chapters 2 and 3, the following three chapters (4–6) signal a substantial expansion in scope in that they introduce the second major topic of this thesis: *The Esoteric*.¹⁶⁹ Thus in Chapters 4 and 5, a discussion of alchemy as well as proportion will be presented, attempting wherever possible to demonstrate the interaction of alchemical symbolism with proportional strategy. Chapter 6 will consider various esoteric influences (other than alchemy) on *Koanga*. Pre-empting one of the final conclusions of this thesis, it is necessary to state here that no common origin or shared source was found to occur between proportion and the phenomena of the Esoteric or the Occult as they occurred in 19th-century Europe: Golden Section theory and its promulgation appear to have arisen quite separately from the 19th-century revival in occultism. Bearing this in mind, (and for those only concerned with proportion and not with esoteric matters), Chapters 4 – 6 might be initially omitted from this account, passing directly to Chapters 7 and 8 which largely deal only with proportion, and which can be read consecutively with Chapters 2 – 3.

The autograph three-volume score of *Irmelin* is undated, but Threlfall suggests the bulk of composition of the opera 'probably dates from the latter part of the period [1890–92] stated'.¹⁷⁰ A vocal score of *Irmelin*, chiefly in the hand of Florent Schmitt (1870–1958), originates from 1893–4.¹⁷¹ However Delius' wife relates that Delius was [still?] working on *Irmelin* shortly after the time they first met *i.e.* January 1896.¹⁷² Similarly, Charles Keary, writing in 1902, confirms that he had worked with Delius on the plot of *Irmelin* at some unspecified period¹⁷³ – the date of the Keary and Delius' initial friendship normally being quoted as beginning during 1896.¹⁷⁴ In addition to Delius' 1888 incomplete work *Zanoni* acting as one source for the music of *Irmelin* ¹⁷⁵ a passage from the pre-Paris tone poem

169. For a definition of *Esoteric* and related terms see the *Glossary of Miscellaneous Terms* immediately preceding the reference section at the end of this thesis.

170. Threlfall 1977, p. 21. Due to several similarities between Debussy's *Pelléas et Mélisande* and Delius' *Irmelin* it is important to establish the exact period of the composition of the latter. See Chapter 10.

171. Threlfall, *ibid.*

172. Carley 1983 *Letters I*, p. 408, p. 410.

173. cf. Keary 1902. [see under 'Notice' in the Introduction].

174. Carley *ibid.* p. 108.

175. Threlfall *ibid.* p. 22.

*Hiawatha*¹⁷⁶ is used in the Act II opening instrumental prelude and in the following scene of *Irmelin*.¹⁷⁷

Synopsis

Act I. Scene 1 begins with Irmelin hearing her 'Voices from Above' advising her to seek her future lover not in the 'everyday world' but 'from above', from where the Voices arise.

Irmelin explains to her maid how her Voices are urging her to wait for her true lover, and how she lacks any interest in her knightly suitors. In addition, she reveals that, according to her Father the King's decree, she must marry within six months.

Scene 2. The King informs Irmelin that three more suitors are to be presented to her that day.

Scenes 3 – 5. The first suitor, an elderly but rich knight, a second, a handsome youth, and a third, a rich and pompous middle-aged knight present themselves in turn to Irmelin, but she rejects all three. On Irmelin's refusal of the third suitor, the King angers, and himself vows to choose a knight whom Irmelin must marry. As evening approaches, Irmelin is left alone.

Scene 6. Her mood changes, and the natural scene beyond her bower seems to Irmelin to become 'alive' and transformed. Irmelin ecstatically muses on her ideal lover. Distant voices are heard, and, as the Act closes, Irmelin hears once again her 'Voices in the Air' calling from afar.

Act II. Scene 1 is set in a forested, swampy area. Nils, a swineherd, reflects on his life in the forest, on his becoming lost there, and on his inability to discover again the 'Silver Stream' which was previously leading him towards his destined partner, a princess. Instead, (as he imagines), he is held in the sway of Rolf, a Viking pirate, and his entourage of women, to whom, at the end of Scene 1, Nils returns.

Scene 2 takes place in the banqueting hall of Rolf's castle. Rolf, now an old man, entertains his men with a song, boasting of his previous exploits.

Scene 3. Nils arrives at Rolf's banqueting hall. Nils confirms to Rolf his desire to find the Silver Stream again, whilst Rolf denies that he is holding Nils against his will. Rolf summons his women to dance for Nils.

Scene 4. Nils is allured by Rolf's dancing women, who tempt him to stay. He suddenly manages to break free of them, and to remember his resolve. He departs rapidly from Rolf's castle which disappears with the rising mist.

176. Threlfall *ibid.* p.126.

177. Compare *Hiawatha* bars 182 – 186 with *Irmelin* Act II bars 25 – 36 [717 – 728].

In Scene 5 Nils reaches a mountainous and rocky terrain covered by woods. It is dawn. The Silver Stream is seen as Nils, in the distance, follows its sound and searches for it. Elated, Nils finally re-discovers the stream. He hears the voices of wood nymphs tempting him from afar, but ignoring them, he starts off again to follow the Silver Stream in his mission to find Irmelin.

Act III Scene 1 opens with a banquet being held at the King's castle. Irmelin, distraught and abandoned by her Voices, is to be betrothed to one of the knights she previously rejected in Act I. Nils, having been lead there by the Silver Stream, emerges from the surrounding woods, approaches the King's castle and enters the banqueting hall, where he encounters Irmelin for the first time. On seeing one another the two become enamoured and transfixed. Nils sings a song to the gathering and to Irmelin, and, at her Father's request, he drinks a toast to Irmelin before he departs. The men of the party now set off on a deer hunt, the women remaining behind. Irmelin, left alone, asks her maid to fetch Nils. Nils tells Irmelin of his life in the woods and his quest for an ideal love. As the hunt returns, Nils departs rapidly. They arrange to meet again in the castle gardens at midnight.

Scene 2. Irmelin waits impatiently for Nils' arrival. He appears at the edge of the surrounding woods and approaches the castle gardens. The two meet ecstatically. They elope, and together enter a new life. The King's castle disappears.

* * * * *

The text of *Irmelin* is primarily allegorical in intent, but nevertheless supports several different narrative layers and allusions:

The King Thrushbeard Folk Tale

Although appearing, with variants, in the folk tales of many countries, the story takes its name from *König Drosselbart*, tale number 52 in the Grimm Brothers' *Kinder und Hausmärchen*¹⁷⁸ Several authors, including Aarne and Thompson,¹⁷⁹ Philipppson¹⁸⁰ and Köhler-Zülch,¹⁸¹ have classified and discussed various narrative components of the folk tale. Some of those relevant to a discussion of *Irmelin* include:

178. See Grimm, Jacob and Grimm, Wilhelm.

179. See Aarne and Thompson (1981).

180. See Philipppson (1923).

181. See Köhler-Zülch, (1996).

A king sends abroad invitations for suitors to woo his daughter. . . a prince (sees a picture of the princess and). . falls in love with her. . .However, the princess disdains all her suitors, naming one of them (the prince) 'Thrushbeard.'

Then: (either): the king, in anger, marries his daughter to a beggar and then [because of the apparent lowly status of the husband] banishes the couple. The princess's pride is broken. The beggar later reveals himself as Thrushbeard.

Or: after his initial rejection by the princess, Thrushbeard returns disguised as a menial, infiltrates the king's household, seduces and elopes with the princess [who has not recognized him as one of her former suitors].¹⁸²

Further motifs associated with the tale include: *menial disguise of princess's lover or disguise as harper or minstrel*.¹⁸³ Philippson cites additional details of the prince's disguise in his monograph including: as *swineherd* (in some Danish, Finnish and German variants) or *flute player* (Estonian variant)¹⁸⁴ Also, in some versions of the tale, the disguised prince wins the love of the princess by singing a 'wonderful song' - *wunderschöner Gesang*¹⁸⁵ – cf. *Irmelin* Act III, from bar 197 [1724]¹⁸⁶ *A piper am I and mind the swine of Rolf*, and from bar 553 [2080] *Whilst alone in the great dark forest*).

The final stages of the folk tale, covering various initial punishments and the subsequent 'reform' of the princess by Thrushbeard, (who later reveals his high social status to the princess before the two are married), are omitted from the opera plot, and which concludes therefore with the elopement of the prince and princess.

The Alchemical Allegory

The truncation of the plot, and the metamorphosis of the sometimes savage or truculent princess of the original folk tale type into a mild and inconsequential *princesse lointaine* might initially seem to render the libretto dramatically featureless. However, with *Irmelin*, as also with its successor, *The Magic Fountain*, the essential nature of the opera is an esoteric one, the plot being cast in the form of an hermetic or alchemical allegory, with any characterization of the main protagonists (beyond the requirements of the allegory) being suppressed. In support of the alchemical basis of the *Irmelin* plot, the entire musical structure evolves and develops using proportion, most elaborately the Golden Section, which pervades the opera possibly intended as a symbol of the 'Philosopher's Gold'.

182. See tale type 900 in Aarne and Thompson and Köhler-Zülch.

183. Aarne and Thompson, *loc. cit.*

184. Philippson p. 6.

185. Philippson p. 26.

186. The cumulative bar line reference number over all three acts of *Irmelin* is quoted in square brackets, [1724] etc.

The main hermetic influence on the libretto for *Irmelin* largely derives from the interpretation of some late medieval and early renaissance romances as alchemical allegories, a type of exegesis associated with Jacques Gohory (1520 -1576) and Béroalde de Verville (1556 -1624) (see below). As a premise to an analysis of the influence of alchemy in Delius' first two operas, brief details of some basic ideas in alchemy are appended below.¹⁸⁷

Selected Alchemical Features of *Irmelin*

Nigredo. *Reign of Saturn.* Irmelin (Act I, bar lines 249 – 488 = 239 bars) and Nils (Act II, bar lines 488 – 632 [1180 –1324] = 144 bars) each undergo separate tests, both imposed by an ageing 'Saturn' figure: the 'old king' (Act I: Irmelin's father; Act II: Rolf, the Viking robber chief): Act I. Irmelin's father, the King, tries to force her into marriage with unsuitable

187. In accordance with hermetic belief, the alchemists 'work' 'reflected' or 'corresponded' with the cosmic processes of creation. Thus the raw material with which they worked was [regarded as a piece of] the original *Chaos/Prima Materia* from which the world was created.

The initial task of the alchemist was to regain the *prima materia* from physical materials, so that his 'work' could then proceed. This was achieved by firstly dissolving and stripping common metals and other substances of their gross physical characteristics. New qualities were then imprinted on the resulting *prima materia*, (e.g. through a series of laboratory processes) to attain desired new substances (cf. Hauck p. 78).

The *prima materia*, (also known as 'our Mercury', 'philosophical mercury' or *Mercurius*), contained two 'seeds' of 'metals': an active 'male' principal, 'sulphur', and a passive 'female' principal known as *argent vif* or 'mercury'. It was believed that various syntheses of these two led to the formation of different metals in the earth: higher concentrations of *argent vif* in the combination leading to a 'greater harmony', and hence formation of the noble metals (cf. Haeffner, p.147).

In alchemical allegories and other writings, the above male and female principles were variously personified: 'King and Queen', '*Sol and Luna*', 'Soul and Body' etc. During the alchemical process they were progressively purified by separation from, and dissolving away of, impure substances, and after each stage of cleansing, the two members were 'combined' (variously termed as *conjunctio* conjugation, marriage, wedding etc.). It was after the last of these combinations that the mature 'philosophers' stone' or 'elixir', possessor of various rejuvenating and magical qualities, was formed.

The whole of the alchemical work was traditionally laid out and described under a number of overlapping stages and phases:

The most familiar of these were the 'black', 'white' and 'red' phases (*Nigredo*, *Albedo* and *Rubedo*):

In Delius' second opera *The Magic Fountain*, the *Nigredo* was preceded by an initial stage 'The Gross Work' comprising the whole of Act I, with the *Nigredo sensu strictu* being placed in Act III.

A second grouping consisted of the *Lesser* and the *Greater Work* or *Magistery* - the *Lesser Work* extended from the *Nigredo* up to the point at which the 'white stone' or 'white elixir' was produced, and the following *Greater Work* or *Greater Magistery*, covering the attainment of the philosopher's stone or (red) elixir.

A third classification referred to the seven heavenly bodies or 'planets' where each planet was associated with its own colour, metal or alchemical procedure. In Delius' *Irmelin* and *The Magic Fountain*, the planetary order is: Saturn, Jupiter, Moon (*Luna*), Venus, Mars and the Sun. As was general in alchemy, Delius omitted Mercury from the planetary sequence, who instead appears as the god *Mercurius*, the major figure of alchemy, and who effects all progress and transformation, from the initial to final stages of the work. Delius appeared particularly intrigued with the figure of *Mercurius*, and in his first two operas, he appears frequently and plays an important role in both his watery and aerial manifestations (sea or ocean, lake, fountain and stream; vapours, mists, and clouds) as well as his male and female personifications, *Sol* and *Luna* (*Solano* and *Watawa*, *Nils* and *Irmelin*). A diagram of the inter-relation of the various concurrent descriptive stages of the alchemical *opus* as they occur in the two operas is attached (Figure 4. 18).

partners. She must reject these suitors as she is obliged to accept only her (yet undiscovered) 'ideal prince' as partner – *i.e.* her *Sol* counterpart', Nils.

Act II. Nils has remained at Rolf's castle, but must break away to seek out his destined future partner, his '*Luna* counterpart', Irmelin. Although the traditional negative attributes of Saturn, (restriction or imposition of limitations, confinement, frustration and melancholy) are to be found in the *Nigredo* of Act I, the prevailing essential quality is that of Saturn effecting a positive *transformation*¹⁸⁸ This is dramatically achieved by the imposition of a suitor trial or ordeal on Irmelin, by her Father, the King.

In Act I, the King's first entry is accompanied by a *maestoso* theme representing the 'severity' and 'old age' associated with Saturn.¹⁸⁹ The same theme also introduces the first of Irmelin's three suitors, 'an elderly knight, richly clad' (bar 291 *et seq*).

The King becomes increasingly annoyed, as Irmelin successively rejects all three of her suitors – and threatens to enforce Irmelin's marriage. Irmelin's ordeal of rejecting the suitors and her opposition to her Father's wishes ends with the King's angry exit. Her release from this negative experience is brought about by her gradual entry into a trance-like, ecstatic state (bar 488 to the end of Act I) and which comprises, the complete section A' of the overall 1: 1 pattern of Act I.¹⁹⁰

In Act II, Rolf is not allotted any specific theme, but is described in the opening stage directions as an old man, with long flowing white beard. He is referred to by his men as 'old Rolf'. Although Rolf's behaviour seems somewhat ambivalent, Nils believes that Rolf had lured him to his castle and is holding him there [*i.e.* he is being prevented by Rolf, the Saturn figure, from his progress towards finding the Silver Stream, which will lead him to Luna/Irmelin]. More probably, Nils is being held at the castle by his own attraction towards Rolf's women, who perform a seductive dance for him. However, when Nils overcomes this final attempt by the dancing women to persuade him to remain with them, he is propelled (alchemically) from the reign of Saturn into Jupiter and the beginning of the *Albedo* phase.¹⁹¹

188. *cf.* Fabricius p. 115: *Saturn is the Hermetic symbol of transformation*; Hauck p. 119: *Saturn acquired a dual reputation as both a stubborn protector of the status quo and the initiator of profound transformation.*

189. Bars 243 – 211, *see also* Figure 4.15.2.

190. *See* Figures 4.3 line 3 and 4.4.

191. The concept in *Irmelin* of the separate 'testing' (purification) of the male and female elements, may be partly due to the original structure of the King Thrushbeard folk-tale, but is also supported by several alchemical tracts:

Purify husband and wife separately, in order that they may unite more intimately;
for if you do not purify them, they cannot love each other
(Avicenna quoted by Kelly – *see* Edinger p. 209 and Berk p. 253).

Albedo. *The Reign of Jupiter* begins Act II, Scene IV at the double bar 632 [1324]: Rolf: 'No! – The silver stream beckons me away! No, I must away! A way out of this wood' (bars 626 – 636 [1318 –1327]). The moment marks the point of decision by Nils to spurn Rolf's women and to depart in search of the Silver Stream. Jovian qualities of self-expansion, opportunity, development and growth are reflected both in the text and music.¹⁹² At bar 636 [1328] the stage direction reads: *A thick mist arises, and the castle disappears* – then later, (at the beginning of Scene V): *The mist clears away and reveals a mountainous and rocky country covered with woods.* The words 'mist' (*brouillard*) 'fog' (used in *Irmelin*) and 'vapour' (*vapeur*) (used in *The Magic Fountain*), refer to Mercurius in his manifestation as an aerial spirit, and commonly appear in Pernety's and other 18th century and earlier alchemical writings:

'Mist': Thick vapour resembling a mist which rises from the matter and condenses in the air above, whence it falls again and waters the earth(=matter) purifying and nourishing it.¹⁹³

Also, Berk writes:

The path of purification consists in putting this natural yearning of the individual substances to severe tests. In other words, they are separated from each other. For a while their natural tendencies [of attraction towards each other] are completely ignored. This process of putrefaction [part of the Nigredo] is a gradual process . . . (Berk p. 259).

192. See Lewis, pp. 312 – 3.

193. *Brouillard: Vapeur épaisse, ressemblant à un brouillard, qui s'élève de la matière, et se condense dans l'air des Philosophes, d'où elle retombe pour arroser leur terre, la purifier et la féconder.* Pernety 1787 see under *Brouillard*. This definition is apparently taken from Rulandus, as are others in Pernety's *Dictionnaire*:

Fog, Mist, etc. – There is a thick vapour resembling Fog or Mist which rises from the Matter and Condenses in the Philosophical Air, whence it again descends to moisten, purify, and fructify the Philosophical Earth. Rulandus trans. Waite p. 363: See under Fog, Mist, etc.

The process of vapours rising to the top of the alembic, variously circulating, and then gradually clearing as they descend and condense into a solid or liquid phase is especially frequent in Pernety's writings, the liquid phase often referred to as 'rain' (*pluie*) or 'dew' (*rosée*), and which performs the function of 'washing' the alchemical matter and transforming it from the black to the white stage:

Les Philosophes nomment aussi Imbibition les vapeurs qui montent au haut du vase pendant que la matière circule, parce que ces vapeurs retombent gouttes à gouttes sur la terre qui reste au fond du vaisseau

[The Philosophers (alchemists) also apply the term 'Imbibition' to the circulating vapours which ascend(ing) to the top of the container fall again droplet by droplet onto the earth that remains at the bottom]. Pernety 1787 see under 'Imbibition'.

Les nuées des Philosophes sont les vapeurs qui s'élèvent de la matière au haut du vase, où elle circulent, se condensent, et retombent en pluie ou rosée

[The philosophers' clouds are vapours which rise from the material to the top of the container, where they circulate, condense and fall as rain or dew] Pernety 1787 see under 'Nuée'.

This process is particularly associated with the reign of Jupiter – for example, in one of the most admired alchemical tracts of the hermetic revival in 19th century Paris: Philalethus: *Open Entry into the Palace of the King*:

Régime de Jupiter: 'Du noir au commencement du blanc. Vapeurs et condensation "Durant ce temps là toutes sorte de couleurs que l'on ne saurait imaginer paraîtront, les pluies seront

Albedo. *The Reign of Luna* begins Act II, Scene V at bar 658 [1350] The stage directions continue: 'The mist clears away and reveals a mountainous and rocky country covered with woods; a stream leaps down the centre from rock to rock; it is night yet and almost quite dark.' At bar 667 [1359]: 'Dawn begins to break, rosy and silvery hues begin to tint the skies.' At bar 680 [1372]: 'The sun now begins to show itself and the silver stream glitters and dances in the early morning sunshine.'

Symbols of the Albedo:

Dawn. One of the better-known earlier instances of 'dawn' as a symbol for the *Albedo* is included in the *Rosarium philosophorum*, plate 9, where the inscription reads: *Animae iubilatio seu Ortus seu sublimatio* (Jubilee of the Soul, or the Dawn, or the Sublimation), and where the preceding plate 8 illustrates the 'washing' process by dew or rain as described above.¹⁹⁴ Mention of 'dawn' as a symbol for the *Albedo* stage, although generally frequent elsewhere in alchemical commentaries, appears to be largely absent in later French writings, including those of Figuier (1854), Pernety (1758; 1787), Salmon & Le Roux (1695) and Poisson (1890).

Sunrise following the Dawn. The sequence Delius uses in Act II Scene 5 of *Irmelin* (of sunrise following dawn in the *Albedo*) occurs for example, in Alexander von Suchten, and is also noted by some modern writers:

On the following day they beheld above the King a most beautiful morning star, and the light of day illumining the darkness (i.e. whiteness), the bright sun rising through the brilliant clouds of various forms and colours (i.e., yellowness and redness)¹⁹⁵

The whitening (albedo or dealbatio) is likened to the ortus solis, the sunrise; it is the light, the

alors plus abondantes de jour à autre et enfin, après toutes ces choses, qui sont très agréables à voir, il paroist au costé du vaisseau une blancheur en façon de petits filaments ou comme des cheveux [see Poisson (1891) p. 118 who quotes here from Philalethus: *l'Entrée ouverte au Palais fermée du roi*.

Compare Poisson's (French) text above with the original Latin to English translation:

Black Saturn is succeeded by Jupiter, who exhibits divers colours there is once more a circulating sublimation. This Reign or Regimen, lasts only three weeks. The "showers" that fall will become more numerous as the close of this reign approaches, and its termination is signaled by the appearance of a snowy white streaky deposit on the sides of the vessel. Rejoice, then for you have successfully accomplished the regimen of Jupiter.

Philalethus (1669) Chapter XXVI: *Of the Regimen of Jupiter*.

194. See Plates 4.5 and 4.6.

195. Von Suchten in Figulus 1608, trans. Waite, A.E. in Figulus 1893.

illumination, that follows the darkness.¹⁹⁶

the second stage in the transformative process is often represented as the dawn, the-sol oriens [the rising of the sun] – the stage of the albedo, which follows the dark night of chaos.¹⁹⁷

Sunrise in the *Albedo* also occurs in alchemical iconography, for example, in Henri de Lintaut's *Aurore* (early 17th century) where the Roman Goddess of Dawn (*Aurora*) is seen standing near the mercurial ('silver') stream which runs into the 'mercurial sea' beyond – and where the sun is seen rising above the distant horizon¹⁹⁸ The six-pointed 'morning star' (Venus) may also be seen above Aurora's head.

Other symbols of the White Phase [Albedo] include white mercury...and the morning star (Venus)...In mythology, Aurora, the Roman goddess of the dawn, is often used by alchemists to refer to the Albedo.¹⁹⁹

Silver Stream. Streams, rivers, (also fountains, springs, seas and oceans, rain and dew) are all forms of Mercurius in his watery aspect. Collectively, these designations may all be subsumed under the general name 'mercurial waters' (*Aqua permanens*, eternal water etc.).

The ancient hermetical philosophers often regarded rivers as an allegorical symbol of the philosophers' mercury or of the mercurial waters.²⁰⁰

Stream: a name for the transforming arcanum, the mercurial waters. The transforming water, also known as streams or rivers, are dual-natured...²⁰¹

The epithet 'silver' in 'Silver Stream' refers to mercurial waters (in Greek 'mercury' = *hydrargyros* 'silver water') and possibly to the mercurial waters' ability (as the 'white elixir' or 'silver-forming elixir'), to transform base metals into silver. The source of the term *silver stream* would be most likely to have been derived from Pernety's *Fables*, a work which Delius, in view of his interest in alchemical allegory, seems very likely to have consulted:

Not far from there, continues Apollonius, flow the silvery waters of the rivulet called Iris which are cast down into the sea

Pernety's gloss on the above reads:

Here is the entire journey that Phineus outlines to them, so it wasn't wrong when advised

196. Jung [1954] 1966 p. 273).

197. Flamel, Maury (1996).

198. Plate 4.2.

199. Hauck p.140.

200. *Les anciens Philosophes Hermétiques. .ont pris très-souvent les fleuves et les rivières pour signe allégorique de leur mercure ou eau mercurielle.* Pernety (1787) see under: *Fleuve*.

201. Abraham p.191.

them that nothing had been forgotten. After the colour black [Nigredo] comes grey [Jupiter] which is succeeded by the whiteness [Albedo-Luna] or the silver [stage], the Moon [Luna] of the philosophers; Phineus indicates this with the silvery waters of the stream/rivulet called Iris.²⁰²

The role of Mercurius. One of Mercurius' main functions in the alchemical *opus* is the bringing together of the separate male and female components (personified here as Nils and Irmelin) and presiding over their conjunction or chemical wedding.²⁰³ The number of conjunctions may vary – in *Irmelin*, three are indicated, all being placed in Act III. Throughout Acts II and III, Nils constantly refers to this primary task of Mercurius (as the 'Silver Stream') in bringing him to his future partner:

I strayed from the silver stream that was leading me on through the valley and grove to the Princess of my dreams (Act II, from bar 142 [834]).

Irmelin! my princess found at last; through the great dark wood the silver stream led me to thee (Act III, from bar 596 [2123]).

Look! there flows the stream, – the stream – that led me so sure, so safely to thee (Act III, from bar 851 [2378]).

The final words of the opera, sung by Nils:

Fare thee well, O sweet silver stream! I need thee no longer –
Act III, from bar 1029 [2556].

refer to Mercurius' accomplishment of his task, in bringing about the final conjugation, the 'royal wedding' – of the two lovers²⁰⁴.

The 'Joy' of the Philosophers – Nils' Discovery of the Silver Stream. Act II bars 684 – 764 [1376 –1456] refer to the attainment (Nils' rediscovery) of the Silver Stream – the White Elixir or White Stone itself. Nils' actual rediscovery occurs in the central section of the above passage (bars 720 – 742 [1412 – 1434]- *Alla breve*). Nils: 'At last – Hurrah! I hear

202. 'Non loin de là', continue Apollonius, 'le petit fleuve Iris roule ses eaux argentées, & va se jeter dans la mer' Pernety's gloss on the above: *Voilà toute la route que leur prescrit Phinée, & ce n'est pas à tort qu'il les assure n'avoir rien oublié. Après la couleur noire vient la grise, à laquelle succède la blanche ou l'argent, la Lune des Philosophes; Phinée l'indique par les eaux argentées du petit fleuve Iris...*Pernety 1758 vol. I: *Histoire de la Conquête de la Toison d'or* pp. 471–472. Pernety draws on an earlier work interpreting *The Argonauts* as alchemical allegory – Michael Maier's *Arcana Arcanissima* published c.1610 (Faivre 1993 p. 24) – but no reference to the River Iris as a symbol of the *Albedo* was found in Maier's work. In modern day Turkey, the River Iris = Yeşilirmak River – arises near Sivas and flows into the Black Sea at Samsun.

203. See Abraham under *Chemical Wedding* and Plates 4.1, 4.7 and 4.8 below.

204. Although indicating an early stage in the *opus*, a well-known illustration by Barchusen, plate 9 in his *Elementa Chymiae* – indicates Mercurius' activity in bringing together the male and female components (here as *Sol* and *Luna*), where the two are linked above the silver (mercurial) stream running below them (see Plate 4. 1). Delius' stage setting for Act II Scene 5, (a mountainous, rocky terrain, with the Silver Stream leaping down the centre from rock to rock), somewhat resembles Barchusen's picture. A reproduction of the Barchusen plate appeared in Albert Poisson: *Cinq Traités d'Alchimie* (1890), and which Delius may have known.

the sound of the stream – At last! O joy! At last! – O sweet silver stream!’

A short lyrical section occurs between the close of the silver stream music (bar 764 [1455]) and the distant chorus of the wood nymphs (bar 789 [1481]), where Nils' continues the theme of 'joy' at his finding the Silver Stream: O joy! O joy! once more to find the silver stream. O joy! to bathe once more in these waters fresh and pure..... how the woods do sing with the birds' joyous song. As Pernety writes, feelings of 'joy' are especially associated with attainment of the white elixir:

When the stone or the material reaches the perfect white (stage)...then the alchemists all proclaim this to be the period of [great] joy...The "Code of Truth" states: 'Whiten the material, then tear up your books, as they are no longer of any use...and you must only feel *joy*'.²⁰⁵

Baptism, bathing, or cleansing. 'O joy! to bathe once more in these waters fresh and pure.....'²⁰⁶ Notions of 'bathing' and 'cleansing' in pure water, and of a 'baptismal renewal' are continued here from the Reign of Jupiter; alternative names for the *Albedo* include *Ablutio* (i.e. 'washing') and *Baptisma* ('baptism').²⁰⁷

The Role of the Wood Nymphs. The final section of Scene 5 reintroduces the themes of Nils' enticement away from pursuing the stream (at this point, by distant, invisible wood-nymphs) and his fortitude and resolve in pursuing his quest. The role of the tempting female figure in alchemy is discussed above in the section on the *Nigredo*. Van den Berk's comments on this topic appear especially relevant at this point in *Irmelin*:

A classic work in this context [i.e. of the alluring female in alchemical symbolism] appeared in the year 1466: The Strife of Love in a Dream of Poliphilo. It tells the story of a young man on a journey, surrounded by nymphs who are attempting to seduce him into giving up his journey and surrender to the *dolce far niente*...inside the work [the French edition published in 1600] we find plates in which our young man is surrounded by seductive women who are trying to win him over.²⁰⁸

Alchemical Interlude: The Fleeing Slave and Fleeing Stag

205. *Lorsque la pierre ou la matiere des Philosophes est parvenue au blanc parfait,..... alors tous les Philosophes disent que c'est le temps de la joie Le Code de vérité dit: Blanchissez le laiton, et déchirez vos livres; ils vous sont inutiles alors.... et vous ne devez avoir que de la joie.* Pernety 1787 see under: *Joie des Philosophes*.

206. Act II Scene 5 from bar 764 [1456].

207. See Ramsay p.80, and Plates 4.3 and 4.5 below.

208. Berk p. 262. The work referred to in the extract is *Hypnerotomachia Poliphili* by Francesco Colonna.

In Act II Scene 1 (from bar 156 [848]) Nils reflects on his life at Rolf's castle, believing himself to be in the thrall of Rolf and his women: 'Now I mind the swine of Rolf the outlaw chief; a slave, – alas! to his will..... enslaved, alas! by his women. How this valley is hateful to me; Oh! could I but find the stream!' In Act II Scene 4 (from bar 611 [1311]) Nils finally manages to break the hold over him of Rolf and Rolf's women and at bar 632 [1324] he 'flees' from the Rolf's castle, which disappears in the rising mist, so moving from the *Nigredo* into the initial stage of the *Albedo*: 'Nay! I must away! No! the silver stream beckons me away.. Away out of this wood!' In Act III, Scene 2 (from bar 380 [1907]) Irmelin is left alone and looks from the castle balcony in the direction of the departing hunt. From bar 1907 she muses: 'I am also a deer they are hunting, but they have not snared me as yet.' Nils and Irmelin are alluding respectively to the 'Fleeing Servant or Slave' (*Servus fugitivus*) and to the 'Fleeing Stag' (deer, hart – *Cervus fugitivus*):

...the fleeing hart, one of the best known epithets of the alchemical Mercurius, also known as the deer, fawn and stag...A variant of the *cervus fugitivus* is the *servus fugitivus*, the fleeing servant... 'cervus' and 'servus' are used interchangeably.²⁰⁹

i.e. both expressions refer to Mercurius in his volatile state, an early emanation from him being the separate male and female 'seeds' or components – *i.e.* Nils and Irmelin in the present allegory. Once again, there appear to be no references to *Servus/Cervus fugitivus* in later French sources consulted on alchemical symbolism (see above), but references are frequent elsewhere.²¹⁰

Act III Scene 1: The First and Second *Conjugatio*

A. *First Conjugatio*. The scene is inside the King's castle, where the betrothal banquet for Irmelin and her third suitor, is in progress. Nils, as the Sol figure, gradually approaches the castle from afar. Nils enters the banqueting hall, where he and Irmelin quickly notice, (and are attracted towards) each other. However, the pair keep a formal distance. After singing a song to the party guests, Nils toasts Irmelin, and then departs again.

209. Abraham p. 32.

210. When our Mercury is joined with either magnesia or lunaria it is more correctly known as 'aqua sicca' (dry water). This does not wet the hands and when placed near a fire it flees like a runaway slave. It is also known as Proteus, since it transforms itself into various, distinct forms and is itself transformed by this process. At times it appears in the form of dew, at times like heavenly rain, sometimes even like snow, hail, hoar frost or a cloud, as if it were dressed in a cloak. This transformation can be seen everywhere: however it comes about, whether in metals, animals or vegetable matter, it is essential for the appearance of the mercury so that the work can be brought to a conclusion. (Philip à Gabella, 1615, trans. Alton, Christopher, n.d.).

B. *Second Conjugatio* and *Stag Hunt*. The male guests then ride away on a deer hunt (see above), while the women guests, who remain behind, gradually move away to the castle gardens. Irmelin, left alone and enamoured of Nils, asks for him to be sent for. The atmosphere becomes more intense as Irmelin awaits Nils. The music moves to F# major the key of the Luna/Irmelin figure. After his entry at bar 2021, a much longer and more intimate exchange between Nils and Irmelin ensues. Nils repeats his song of Act II Scene 1, but now beginning in E major, the key denoting Nils as both the 'Prince' and the 'Sol' figure. As the hunt is heard returning, Nils departs to the woods of the surrounding countryside.

Act III Scene 2: Entry into the *Rubedo* and the Third *Conjugatio*

B'. *Third Conjugatio*. At the beginning of Scene 2 (bar 776 [2293]) Irmelin, in the gardens of her bower outside the castle, awaits the return of Nils. The stage direction reads: 'Irmelin, dressed in long flowing robes of light rose colour, stands ... looking anxiously and expectantly towards the woods. A green light falls on the stage.'

Rubedo. *Reign of Venus*. The green light signifies entry into the Reign of Venus, the colour most frequently associated with this planet in alchemy. It is also the initial planet of the ensuing *Rubedo* phase. The rose colour of Irmelin's robe here signifies the red of the *Rubedo* stage.²¹¹

Rubedo. *Reign of Mars*. The following section (bar lines 788 – 897 [2315 -2424]) lies under the reign of Mars. Nils' approach from the distance is marked initially by the repetition of the opening phrase of the final transformation of Irmelin's theme, and from bar 797 [2324], the Mars theme, which illustrates well Mars' main characteristic in alchemy: 'In alchemy, the red planet Mars represents energy and raw power,'²¹² and which reaches up to the C# major climax of the Opera at bar line 824 [2356].²¹³ The arrival and embrace of Nils and Irmelin at this point enacts the third *conjugatio* of the alchemical *opus*, the celebrated Royal Wedding – often portrayed in the iconology as a King and Queen in splendid array, sometimes with a young child – (the newly born and renewed Mercurius, the *Filius philosophorum*, the Philosophers' Stone etc.)

211. 'Rose: La couleur rouge' Poisson 1891 *Dictionnaire* section p. 155.

212. Hauck, p. 121.

213. See Figures 4.17.2 and 4.17.3.

standing in between them.²¹⁴

In Act III Scene 1, Nils and Irmelin have undergone an initial process of separation and union, followed by separation-union-separation for a second time. In Act III Scene 2, Nils approaches from a distance and unites with Irmelin a third time, but here they do not separate again. This reiterative process in Act III, is known most commonly as *solve et coagula*, whilst the final union is termed (as above) the Royal Wedding:

The purification of the matter of the Stone is accomplished by a reiterative cycle ofdissolve and coagulate, also known as separation and union, division and conjunction The male and female opposites cannot be united at a refined level until they have first been separated or divorced. The separation or divorce must then be followed by the chemical wedding of king and queen, the perfect mixing of body and soul (or the united soul/spirit) so that a new incarnation can come into existence. This is the birth of the philosophers' stone.²¹⁵

A' *Rubedo. Reign of the Sun.* The final section of the *Rubedo*, runs either from bar line 897 [2424] to the end of the opera – or possibly only from the second duet *the dawn is breaking* at (revised) bar line 975 [2502] which follows the final occurrence of the 'transformation music' (revised bar lines 966 – 975, [2493 – 2502]). The theme of the reign of the Sun is renewal and transfiguration, both of self and nature. The main colours of the *opus* are also referred to in this closing section:

The dawn of our day! How bright and fair is the sky over there on this our first love's morn, see the silver, rose and gold, rising and quiv'ring in the air, full of love so fair: trembling like our own hearts as they rise on their blissful way to heaven, on their way to love's own day²¹⁶

Irmelin and Nils wander hand in hand joyfully through the wood wondering at and discovering new beauties everywhere. The castle disappears... Irmelin and Nils now disappear from sight.²¹⁷

Brief Overview of Patterning and Proportion in Irmelin

[Reference should be made to Figures 4.1 – 4.9 in the accompanying diagrams].

N.B. In the diagrams presented, the music between bar lines 960 – 975 of Act III Scene 2 has been

214. Plate 4.9.

215. Abraham, *see under: divorce* p. 56.

216. Nils and Irmelin, revised bar lines 975 – 1022 [2525 – 2549].

217. Stage directions at revised bar lines 1031 [2558] and 1050 [2577].

omitted,²¹⁸ and bars subsequent to this excision have been renumbered i.e. bar line 975 of the published score becomes bar line 960 [2487] etc.

Primary Overall Division. Acts II – III are divided by GS at the point of discovery of the Silver Stream, Act I serves here as an 'excluded prelude.'²¹⁹

Overall Primary Pattern. No primary pattern encompassing the entire opera has been discerned.

Secondary Divisions

Act I is divided 1: 1 between Scenes 3 and 4.²²⁰

Act II is in GS proportion with the GS point separating Scenes 3 and 4.²²¹

Act III is in 2: 1 proportion with 2: 1 point separating Scenes 1 and 2.²²²

Secondary Patterns (i.e. individual acts excluding any instrumental preludes (excepting Act III Scene 2):

Act I follows a 1: 1 pattern, ABA' where A and A' = Irmelin with Maid, B = suitor test.²²³

Act II is also a 1: 1 pattern, where A and A' = Nils in the forest, B = Rolf's stronghold.²²⁴

Act III is a complete 2: 1 pattern, A || B: B' ||: A', where A = Banquet + 1st conjugation; B = Hunt and 2nd conjugation; B' = 3rd conjugation; A' = Elopement.²²⁵

Tertiary and Successive Divisions and Patterns

Acts I and II: the component sectors of each pattern are variously subdivided.²²⁶

Act III: the A and A' sectors of the 2: 1 pattern are subdivided.²²⁷

Superimposed Designs and Divisions

Act I. A CGSP is superimposed (asymmetrically) on Scenes 2 – 6.²²⁸

218. These bars have been deleted in the autograph score. Their editorial re-instatement in the *Complete Works* Vol 1 has led to a complete disruption of Delius' proportioning in both Acts II and III.

219. Figures 4.1 and 4.2.

220. Figures 4.1 and 4.3.

221. Figures 4.1 and 4.5 no 3.

222. Figures 4.1 and 4.7 no 2.

223. Figures 4.1, 4.2 and 4.3 no 3.

224. Figures 4.1, 4.2 and 4.5 no 2.

225. Figures 4.1 and 4.7 no 2.

226. Figures 4.3, 4.4, 4.5 and 4.6.

227. Figures 4.7 no 3 and 4.9 no 2a.

228. Figure 4.3. no 5.

Act III. A complex GS design occurs as the 'subsidiary layer' to the above complete 2: 1 pattern. The instrumental prelude to Scene 1 being omitted.²²⁹

Miscellaneous Links and Cross References

The 'B' sections of Acts I and II are in GS proportion – 239: 387 bars; also, there is several links occurring between the three acts, largely in connection with the alchemical narrative.²³⁰

* * * * *

Strategies of Proportioning underlying the Alchemical Allegory

Historical attitudes to the two major stages of the *Opus* (the attainment of the White Stone/elixir and the Philosophers Stone or red elixir) may vary, the realization of the white stone in itself often being regarded as the culmination and termination of the alchemical quest²³¹ For Delius, however, the goal was unequivocally the attainment of the *Rubedo* stage and the philosopher's stone. Delius reflects this standpoint in his overall design, and in the comparative proportioning strategies of the *Albedo* and *Rubedo* phases.

The point of rediscovery of the Silver Stream should be taken from Act II bar line 724 [1416] when Nils first hears its waters (*At last! Hurrah! I hear the sound of the stream*) Bar line 1416 is the pivotal point of a symmetrical design extending from the opening of Scene 5, (bar line 658 [1350]), up to the entry of the wood nymphs' distant music (bar line 789 [1481]).²³² Within this design, an inner pattern of 22|36|22 bars also pivots symmetrically around bar line 724 [1416], the central and outer sections contrasting musically²³³, but are in GS relationship with one another (22: 36 bars). This interesting pattern, which combines both symmetrical and asymmetrical components in its structure, was used again, for example in the large-scale chorus of *A Mass of Life* part II/1 – 31|50|31 + 4 closing bars.²³⁴ The musical design for Nils' discovery of the Silver Stream, as the fulfilment of the alchemist's 'Lesser Work', is on a smaller scale, and perhaps more 'static'

229. Figure 4.7 no 4.

230. Figure. 4.2.

231. Jung 1970 p. 286; Ramsay p. 81.

232. Figure 4.6 nos 5 and 6.

233. Figure 4.15 nos 3 and 4.

234. Chapter 7, Figure 7.6.

than that of the attainment of the 'Greater Work' – the philosophers stone, which occurs in Act III Scenes 1 – 2, and where Delius builds up a far more dynamic and complex formation using both GS Types I and II.²³⁵

In terms of the overall proportioning model for *Irmelin*, this again derives from bar line 1416, which apart from being the point around which the above symmetrical design pivots, also proves to be the S: L GS point over the entire course of Acts II and III. The opera's primary design is therefore a simple type I GS division spanning Acts II and III but preceded by Act I as a 'prelude' which is not initially 'included.' This model of 'the excluded prelude' was used frequently by Delius in his mature works, (for example, in the *Cello Concerto* of 1921).²³⁶

A difficulty in applying either binary, 2: 1 or GS designs which encompass entire large-scale works, is that the primary points for each type of proportion will occur more towards the *middle* of the composition, so that when the musical or dramatic climax occurs towards the *end* of a work, opportunities for using these primary points (especially in a *rhetorical* or *dramatic* sense) are either curtailed or lost completely. Delius' approaches towards allaying this situation are several. In *Irmelin*, they include firstly, the omission of Act I from the primary division (as described above) so that the primary points then fall later in the work. Secondly, (since the alchemical allegory reaches its highest point in the last scene of the opera), Delius shifts the whole dramatic weight of *Irmelin* towards this point by constructing an expansive and complex design based on a Type II GS hierarchy, and whose main GS point (at bar line III 829 [2356] coincides with the attainment of the mature Philosopher's Stone. This design extends from bar line 461 [1988] (F# major entry Act III Scene 1), to the close of the opera at bar line 1058 [2585].

This latter marks the crowning moment in the alchemical allegory – often referred to as the *Royal* or *Chymical Wedding* in hermetic literature – and frequently depicted showing *Sol* and *Luna* robed and adorned in splendid regal array, and with the product of their union, the *Filius Philosophorum*, crowned as the reborn King, standing in between them.²³⁷ The 5 - member, type II GS hierarchy mentioned above, (see Figures 4.7, 4.8 and 4.9), constitutes the

235. See Figures 4.7 – 4.9, and text below.

236. See Chapter 7 text and Figure 7.

237. Plate 4.9.

main underlying process carrying both music and allegory towards this point. Also occurring, is a second (superimposed) design, constructed around the S: L GS point of Act II Scene 2 (bar line 839 [2366] Figure 4.9). The main features of this entire complex include:

The Type II Hierarchy

1. The upper member, 597 bars, is also the 'longer' limb of the main GS division of Act III 366: 597 bars, so that the entire set is confined to, and constructed upon, this limb.²³⁸ The prior end-point of the limb is thus also the main GS point of Act III *i.e.* the first entry into F# major in Act III²³⁹, while the latter end point coincides with the end of the work at bar line 1058 [2585].

2. The remaining three GS members of the hierarchy (nos two, four and five) are all contained within Act III Scene 2, and are all 'S: L' divisions, contrasting with the 'L: S' direction of the upper member.²⁴⁰ Member two extends from the opening F# major of Scene 2 up to the double bar introducing the coda-like conclusion to the opera at *Fare thee well, O sweet silver stream!* (bar line 1029 [2556]). Member three of the hierarchy is a 2: 1 division, measured in crotchet beats, bar lines 705 – 897 [2232– 2424]). Bars 849 – 859 [2376 –2386] which change to 6/4 from the prevailing 4/4-time signature and are marked *Meno mosso* and 'q = h of preceding', should be counted as two beats per bar only. Members two, four and five form three different complete GS patterns amongst themselves, with consequent 'hidden' additional GS comparisons within the hierarchy as explained in Chapter 2.

3. *Subdivision of limbs of individual hierarchy members.* Type I GS proportioning occurs in the longer limbs of members two, three and four. As usual, it is the 'earlier' occurring limb of each division in a hierarchy which is further subdivided rather than the later.

4. *Subdivision of Member Three, (2: 1, 496: 250 q 's).* The GS divisions subsumed under member three, form the dramatic centre of the hierarchy, and traverse both the 'final ascent' from F# major to the C# major of the Royal Wedding and the subsequent 'descent' down to D major, at the entry into the 'Sun Stage' of the *Rubedo*. As with the large-scale structure at the end of Act I, an upper 2: 1 member (measured in crotchets) encompasses an underlying sub-structure of two separate sectors each subdivided by GS (measured in bars) *i.e.* here, 49: 29 and 41: 68 bars subsumed under a 2: 1 division of 496: 250 crotchet beats. Up to the main GS/2: 1 point at bar line 829/ [2356], there is a dramatic interplay among the keys of F# major,

238. See Figure 4.7 no 4.

239. For the music at this point see Figure 4.17 no 1

240. See Figure 4.8.

E major and C# major and between bars 1 – 4 of theme 5 of Figure 4.14 and the 'Prince' theme (Figure 4.10, no 5) the latter intervening at the GS point of the 49: 29 bars division. The upwards movement continues at the start of the 41: 68 bar division, now based on the 4-bar motif accompanied by the exultant 'Mars' counter-theme, which is first announced in the lower strings and woodwind (Figure 4.17 no 2) later also on lower brass, leading to the triumphant C# major climax of the opera. There is a sudden change of motif and tension immediately following the GS point, where the upwards motion is reversed, and a long descent ensues, based on the elaborate version of the descending fourths motif (Figure 4.11 no 7). A scheme of the complete descent is given in Figure 4.15 no 1.

Second Design based on bar line 839 [2366]

1. The S: L GS point of Act III Scene 2 (falling at bar line 839, and dividing Scene 2 into 134: 219 bars), is musically 'masked' (*i.e.* there is no obvious musical event marking the point) but is observed textually by the word *Prince* in Irmelin's response *My own true Prince* to Nils' greeting *Irmelin!* at the bar line 829 [2356] climax. Also, each of the two limbs is further subdivided by GS: 134 = 83: 51 and 219 = 136: 83 bars.

2. Further emphasis is placed on Irmelin's reply by the construction of an ABA' pattern pivoting around bar line 839: 34||51: 100 ||:21 bars where the outer and inner pairs are in GS and 1: 2 proportion respectively.²⁴¹ The GS components are also musically matched (*i.e.* A=X and A' = X') X being based on the constantly reiterated E major Prince theme and/or its chromatic counterpoint.²⁴²

3. The above ABA' pattern can in turn be extended to the limits of Scene 2 *viz* 49 | 34|| 51 100|| 21 | 98 bars, the outer underlined pair being in 1: 2 proportion.

Transition from Golden Section to 2: 1 proportioning

With the move to section A' of the complete 2: 1 pattern of Act III, there is a clear change from GS to 2: 1 proportioning, marking the exit from Mars and transit to the final Sun stage. This symbolic use of proportioning in Delius is often associated with notions of transcendence, transfiguration *etc.*, and occurs predominantly, therefore, towards the close of a work.

Proportioning the Albedo and Rubedo Phases

241. Figure 4.9 nos 4 and 4a.

242. Figure 4.10 no 5.

In comparing the *Albedo Luna* stage (Act II Scene 5 — 178 bars), with the *Rubedo* (beginning at the green light of Venus at the start of Act III Scene 2 — 292 bars²⁴³ the symbolism of the 'supremacy' of the ultimate quest for the philosophers stone over the quest for the silver stage only is upheld by the S: L GS proportion *i.e.* 178: 292 bars. The intervening B section (765 bars) displays no further partitioning, so that the pattern formed is tripartite. Musically, the A and A' sections are unmatched, but are directly related in terms of alchemical metaphor.

Proportioning the Nigredo

The B sections of the primary 1:1 patterns of Acts I and II, (239 and 387 bars respectively) are in precise GS proportion²⁴⁴ linking the Saturn and Saturn + Jupiter phases of Acts I and II

Some Additional Designs featuring Proportioning Techniques

Instrumental Prelude to Act I

Besides being the main source of motivic material for much of the opera, the initial prelude also adumbrates some of the main proportioning tactics subsequently applied, and which Delius had been developing in works written prior to *Irmelin*.

1. The primary division is 2: 1, (31: 15 bars), with Irmelin's theme²⁴⁵ emerging from the 2: 1 point (see below). The 31-bar limb is then sub-divided *directly* by GS (normally, a second member, constructed under the 46-bar primary, and then subdivided by GS, would be typical).

2. From the beginning of the prelude, there is an 'ascent' from G# minor to F# major and then up to the GS point (bar line 20). Following the emergence of the main themes from the GS point as described below, there is a marked 'descent' of the music. This design foreshadows therefore, the two large-scale constructions at the ends of Acts I and III respectively, both combining 2: 1/GS hierarchies, which aspire upwards towards a dramatic climax before slowly dissipating in a downwards direction.

3. Although there are minimal available bars for comparison, the opening six bars (G# minor) and the closing four bars (Irmelin's theme — F# major) of the prelude are in GS

243. Figure 4.2, at bottom of page under heading 'Albedo: Rubedo (GS)'.

244. Figure 4.2, mid-page.

245. Figure 4.13 no 4b.

proportion, so that the prelude itself suggests a tripartite GS pattern. Similarly, the closing four bars of the prelude are in GS proportion to the opening six bars of Scene 1. This latter illustrates an important hallmark of Delius' general technique: the secondary linking (by means of proportion) to the main body of that design, of an opening introductory section of a movement or work, *which has been initially excluded from an overall primary design*. In *Irmelin*, for example, the Act I prelude is linked to the ensuing 1: 1 pattern (comprising Act I proper (202|239|205 bars) by a 4: 6 bar link as described. A broader link is also established (46: 73 bars), so that a complete GS pattern (42||4: 6||:67 bars) links the prelude to the A section of the primary pattern.²⁴⁶

Act I Section A' of the 1: 1 pattern of Act I (*i.e.* bar lines 488 – 693),²⁴⁷ offers another substantial essay in proportion, in some degree presaging the more complex design of Act III. Textually, it appears disconnected from the main alchemical argument, constituting one of several such interludes in the opera. The design follows a general trend – that of several strata of GS proportioning subsumed under a primary 2: 1 division, as already hinted at in the Prelude to Act I. Within the 2: 1 division, (measured in 536: 264 crotchet beats), the music of the upward limb matches *Irmelin's* gradual increase in emotional intensity. At the 2: 1 point (bar line 622) her soliloquy is interrupted by the distant voices of young men and women.²⁴⁸ These continue over the next 35 bars until, when *Irmelin* resumes her song, both music and text slowly lose their energy and gradually expire to the end of the Act I.

Section A' is also divided irregularly into sectors of 92 and 113 bars respectively. The first of these is subdivided at its two main GS points at bar lines 523 (which acts as a 'magic portal' into F# major)²⁴⁹ and 545 (the initial entry of the off-stage horn call).²⁵⁰ The following 113-bar section can, unusually, be apportioned into a number of alternative designs; the most satisfactory probably being the tripartite 4 c, whose B section starts with the entry of the distant voices and spans all of the section notated in Db major. An overall complete GS pattern for the entire A' section is also possible, but with the B section switched around bar line 580.²⁵¹ With its F# major entry and gradual 'ascent' to Db

246. Figure 4.3 no 6.

247. See Figure 4.4.

248. Figure 4.16 no 3.

249. Figures 4.4 and 4.16 no 1.

250. Figures 4.4 and 4.16 no 2.

251. Figure 4.4 no 3.

major, the whole A' section distantly reflects its more complex and brilliant F# to C# major counterpart design of Act III.

Act II

The designs within sections A and A' (described above) of the 1: 1 pattern of Act II are both symmetrical, so that each, formally, balance one other.²⁵² Dramatically, however, they are contrasted. Section A recounts Nils' life in the woods, and his frustration at being unable to rediscover the Silver Stream, whilst section A' relates his triumphant encounter with the Silver Stream, his ridding himself of his earlier dejection, and the fulfilment of the first stage of his quest.

Within the overall 1: 1 pattern of Act II, the A section comprises a subsidiary 1: 1 pattern, of 42| 48 + 49| 40 bars, the whole pivoting 90: 89 bars about bar line 182 [874] at Nils' 'How this valley is hateful to me; Oh, could I but find the stream!'²⁵³ Also, (compared with the general norm), the dramatic trajectory and design of this section is inverted somewhat: the outer 42 and 40 bar portions covering relatively tranquil emotions and an atmosphere of resignation, whilst the inner pair of 48 + 49 bars focus on a more agitated, darker mood which centres on the 1: 1 point.

Regarding the proportioning of Act II in its entirety, this stems initially from the GS subdivisions of the basic 744 bars. Column 2 below gives the actual bar numbers involved, while column 3 lists the precise values of the GS series, calculated from an initial value of 744 bars. (The instrumental prelude is initially excluded from the design).

1.	2.	3.	4.
Scenes 1 – 5	744	744.0	754.9
Scenes 1 – 3	459	459.8	466.6
Scenes 4 – 5	285	284.2	288.3
Scenes 1 & 5	179 & 178	175.6	178.2
Scene 4	107	108.5	110.1
Scene 4 Dance	65	67.1	68.1
Scene 4 remaining	42	41.5	42.1
Scene 4 – Jupiter	26	25.6	26.0

252. Figure 4.5 and Figure 4.6 nos 1 – 4.

253. Figure 4.6 nos 2 – 4.

These and similar data suggest that the composer worked by subdivision of larger values 'downwards' to smaller values, rather than by an 'upwards' accretion of smaller values into a larger whole. If one calculates 'upwards' from the 26-bar value, the precise GS series (column 4) tends to deviate substantially as values increase, compared to those adopted (column two).

* * * * *

The long approach to, and final realization of, the Philosopher's Stone towards the end of the Opera, is underlined not only using proportion, but by several other musical stratagems, which gradually unfold during the approach towards this climax, but whose origins, nevertheless, are laid down in the opening scenes of the Opera.

Key Symbolism

This is based on a part cycle of fifths: D major, [A major excluded], E major, B major, F# major and C# major. Although not exclusively confined to the following roles and situations, there is a general association between key and drama as follows:

D major is associated with accomplishment of the white stone/elixir of the Lesser Magistry (cf. Act II Scene 5, bar lines 684 – 764 [1376 – 1456].

E major relates to Nils, especially in his role as 'Prince' and as the alchemical *Sol*; (prelude to Act II Scene 1, bar lines 1 – 92 [693 – 784] and postlude bar lines 238 – 264 [930 – 956]; Act III Scene 1 Nils' song bar lines 197 – 245 [1724 – 1772]. Act III Scene 2, Nils as *Sol*, bar lines 754 – 783 [2281 – 2310] and 939 – 960 [2466 – 2487].

B major/G# minor identifies those elements in the drama separating Nils and Irmelin and obstructing their eventual conjugation (unification) in their alchemical roles of *Sol* and *Luna* (Act I Scene 1, Maid's song, bar lines 135 – 148; Act III Scene 1, banquet guests, bar lines 95 – 1123 [1622 – 1650].

F# major pertains to Irmelin herself, primarily as the alchemical *Luna* and counterpart to *Sol*. The key may also signal Irmelin's entry into a trance-like state or a condition of heightened awareness or anticipation (Act I Scene 5, bar line 523;²⁵⁴ Act III scene 1, bar line 461 [1988]).²⁵⁵

C# major celebrates the final approach to the 'Royal Wedding' of *Sol* and *Luna*, and the attainment of the Philosophers Stone (Act III Scene 2, bar lines 738 – 746 [2265 – 2273] and

254. Figure 4.16 no 1.

255. Figure 4.17 no 1.

Relative minor keys

E flat minor denotes Irmelin's dejection and sense of isolation at her impending betrothal to the Third Knight. The key also, marks her abandonment by the 'voices' she hears which impel her to seek out her ideal lover. (Act III Scene 1, bar lines 42 – 47 [1569 – 1575] and bar lines 153 – 168 [1680 – 1695].

Other Keys

F major may substitute for *F# major* in some of Irmelin's music (Act I Scene 1, Irmelin's song, bar lines 174 – 211). Also, whereas the entire opera opens in *G# minor/F# major* (prelude to Act I), it closes in *F major* (Act III Scene 2 bar line 1002 to end [2529 to end]).

E flat major may substitute for Nils' *E major* (Act II Scene 1, Nils song, bar lines 92 – 134 [784 – 134]; Act III Scene 1 Nils' song begins in *E major* but continues in *E flat major* from bar line 266 [1793]. In Act II (which is 'Nils' act' – in which Irmelin doesn't appear) the opening instrumental prelude is in *E major* whilst the Act closes in *E flat major*.

Scheme of Motifs

Most of the motifs used in *Irmelin* have their source in the opening instrumental prelude to the opera.

Motifs beginning with a single descending and returning fourth (cf. Act I, bars 1 – 4);²⁵⁷

The opening of the Maid's song (Act I cf. bars 135 – 138), derives from these bars,²⁵⁸ as do Nils' 'motif of anguish' (introduced at Act II Scene 1, bars 134 – 137 [826 – 829]),²⁵⁹ and the important 'Prince' motif, (Act III Scene 2 bars 754 – 757 [2281 – 2284]),²⁶⁰ which is 'quoted' at several points in the opera before its fullest emergence in Act III Scene 2.

*Sequences of fourths, descending in steps of a minor third.*²⁶¹ the source of this idea springs from bars 1 – 7 of the prelude, where the flute and clarinet interchanges (when the clarinet is 'read' at notated rather than at sounding pitch) generate the sequence of notes B – F#, G# – D#. The motif is alluded to in several guises in Acts I and III before being presented at the 'same pitch' in an extended chain of descending fourths (Act III Scene 1 bars 514 [2041] *et*

256. Figure 4.17 no 3.

257. Figure 4.10 no 1.

258. Figure 4.10 no 2.

259. Figure 4.10 no 4.

260. Figure 4.10 no 5.

261. See Figure 4.11.

seq)²⁶² and finally in its fully-expanded form from the climax of the opera through to the beginning of the duet *The Dawn is breaking* (Bar lines 829 – 897 [2356 – 2424]).²⁶³

Irmelin's solo (starting I Scene 1, bar line 103, F minor, continuing in Eb minor at bars 120 – 124) also derives from Act I Scene 1, bars 1– 4.²⁶⁴

Irmelin's dejection theme. This is first fully introduced in Act III Scene 1, bar line 42 [1569]. It is initially notated in an implied D# minor between oboes and clarinet Act I bars 1 – 5.²⁶⁵

Irmelin's theme and Nils' quest' theme, Act I bars 19 – 20.²⁶⁶ The two main recurring motives of the opera, one associated with Nils' search for the Silver Stream ('quest' motif)²⁶⁷, the second representing Irmelin herself,²⁶⁸ emerge 'intertwined' from the first GS point of the opera at bar line 20, where the notes of bars 20 – 21 'complete' the two interlaced motifs. Later in the prelude, Irmelin's motif is stated fully from the 2: 1 point at bar line 32 (but with a D§ for a D# in bar 33), and again, but now in its fully pentatonic form, over the last four bars of the prelude. Nils' quest motif is first (re)-introduced on the bass clarinet and horns in the prelude to Act II bar lines 17 – 21 [709 – 713]. Also, it will be noted, that both initial 'overt' statements of the 'Irmelin' and 'quest' motifs are repeated at the same pitch, (or same notated pitch), as at their original emergence in Act I bars 20 –21, a procedure adopted for several other motifs and their transformations.

Transformations of Irmelin's theme. Several are illustrated in Figure 4.14. There is a general increase in complexity with each successive variant, the most elaborate being the prelude to Act III Scene 2. The opening four bars of this latter are variously repeated, in the approach to the culminating GS point (Act III scene 2, bar line 829 [2356]).²⁶⁹

* * * * *

Some Additional Observations on Delius' text for Irmelin

Several biographical or autobiographical elements occur in the text of *Irmelin*. Thus, for example, from bar 473 to the end of Act I, the entire trajectory of an ecstatic or mystical experience is being intimated. The suggested 'trigger' (Marshall pp. 92 – 3) here for such

262. Figure 4.11 no 6.

263. Figure 4.15 no 1.

264. Figure 4.12 nos 1 a to 1 c.

265. Figure 4.12. nos 3 a and 3 b.

266. Figure 4.13.

267. Figure 4.13 no 4 a.

268. Figure 4.13 no 4 b.

269. Figure 4.17 nos 2 and 3.

an experience would be Irmelin's 'psychological distress' at her Father's anger and his threat of enforcing her marriage. The agency or vehicle of expression for the experience is an elaborate GS 'ascent' structure. Similarly, although largely relating to the 'alchemical layer' of the plot narrative, the corresponding GS 'ascent' formation in Act III, may pertain, in some degree, to such personal experience.²⁷⁰ Similarly, Wagnerian influences are frequent in the libretto as well as in the music of *Irmelin*. Instances in the libretto include: Nils' temptation by Rolf the robber's dancing women, Rolf's description of Nils as a 'simple minded youth' (cf. *der reine Tor*) and the disappearance of Rolf's castle at the end of Act II appear to be direct references to *Parsifal*. Similarly, Irmelin's bower leading into a garden, her attendant maid, a hunt disappearing into the distance and the tryst of the two lovers all derive from Act II of *Tristan und Isolde*. However, Delius tends to absorb and adapt many of these Wagnerian allusions within his own alchemical scheme: the hunt in *Tristan* becoming specifically a *stag* hunt in *Irmelin*, the fleeing stag being a favourite symbol in alchemy. To Wagner's description of Isolde's apartment (*Gemach*) and surrounding garden, Irmelin's bower (*Schlafgemach*) and surrounds become flooded with a green light, signifying the Reign of Venus, the first stage of the *Rubedo* phase in alchemy. Charles Francis Keary. In a letter from Delius to Jutta Bell dated 15 July 1896,²⁷¹ the composer refers to C. F. Keary (1848 – 1917), then currently writing the libretto for Delius' third opera *Koanga*, as 'a new friend who I value much.' and from this letter, several of Delius' biographers, including Randel (1971), assume Keary and Delius first met during the earlier half of 1896. However, various historical and other allusions in the text to *Irmelin* suggest that Keary, a noted historian and specialist in Scandinavian literature, may have had some involvement in the text (ostensibly) completed by Delius 1890 – 92:

1. In *The Vikings in Western Christendom* (published 1891), Keary first refers to the tale of the 'Princess and her Suitors' albeit in a variant where the Princess is cast in her most aggressive aspect: 'We read not seldom in mediaeval romance of some cruel and beautiful maiden – a Melusina or some other – whose lovers had to pay with their lives the penalty of trying to win her.'²⁷² Eleven years later, Keary himself published a long narrative poem addressing this same topic (see below).

2. The Viking chieftain 'Rolf' in Act II of *Irmelin*, may have been named after the

270. For further discussion of this subject see Chapter 14.

271. Carley 1983 *Letters I* p. 108.

272. Keary, 1891 p.40.

historical Danish or Norwegian Viking Chief 'Rolf' (c. 846 – c. 931), a figure both admired by and frequently referred to by Keary: 'And according to some traditions it was about this time that a new figure began to distinguish himself, one who in fame and in the permanency of his achievements, was to surpass all the other Viking chiefs: I mean Rolf, the future founder of Normandy.'²⁷³

3. Keary also draws attention to the various fights and skirmishes which occurred amongst Viking communities: 'The idea of the Viking life no longer represented a great combat between heathendom and Christendom; far more a desultory warfare carried on by one nation of Scandinavians against another, or by the outlaws of some Scandinavian state against the party in power' (Keary, 1891 p. 255). In Act II of *Irmelin*, Rolf, the robber, boasts of the hostility between himself and the King (Irmelin's father) and sings of himself: 'He's the only chief in this land that pays no tribute to the King, for he fears young Rolf and his band and lets them off for nothing' – Act II Scene 2 from bar 452 [1144]. He subsequently taunts: 'Nay, he's ready to woo the Princess and ask the old King for her hand' (from bar 469 [1159]).

4. Deriving from his discussions on *Njal's Saga*, Keary shows an especial interest in the origin of the name 'Niels' and its variants: 'The other hero of the Saga (to which he has given his name) must have had some Irish parentage: for his name, Njál, is really Irish, not Scandinavian. It is the same as Niel in the family O'Niel. And though the name became acclimatized in the Scandinavian countries and has remained so to this day (whence the common Christian name Niels which we find in Iceland, in Norway or Sweden...) ... and wherever found it betokens, we may feel sure, some Irish ancestor.'²⁷⁴ A survey of Keary's novels and other fiction, as well as his remaining academic works, uncovered conclusive evidence of his involvement in the libretto of *Irmelin*. This was his dramatic poem, published in 1902, *The Brothers. A Fairy Masque*. The author's preliminary notice to the poem reads:

The following masque was begun as a sort of Fairy Opera, and to some extent in collaboration with my friend, the composer F. Delius; though of that slight sketch nothing remains here save two names, Niels [sic] and Irmelin. It is desirable to record this fact, in case my friend should some day find occasion to complete his opera, which with a totally different book, might ye contain these two *dramatis personae*.²⁷⁵

A main difference between the *Irmelin* and the *Masque* texts is the presence in the latter, of

273. Keary, *ibid* p. 399; see also pp 155, 179, 321, 420, 438 and 443.

274. Keary 1892, pp 122 – 123; see also Keary 1891, p. 184.

275. Keary 1902 p. vi Notice.

a brother to Niels, Erol, – and it is Erol, rather than Niels, who eventually wins Irmelin's hand and elopes with her. Also, the two texts are further separated by perhaps (in *Irmelin*) its most notable quality: its alchemical-allegorical aspect – there being no similar reference in the *Masque* text. Thus the (beneficent) 'Silver Stream' in *Irmelin* becomes the ambivalent and ominous 'Silent Stream' in the *Masque*, ultimately, (following the initial rescue and escape of Irmelin and her lover), engulfing all remaining in her Father's castle. Since the texts for both *Irmelin* and the *Masque* share several common elements which had been originally gleaned from several different sources, Keary's suggestion of an earlier joint project between Delius and himself on a text for *Irmelin* seems highly credible. However, the *terminus ante quem* for such a collaboration, would have been May of 1894, when the composer Florent Schmitt (1870 – 1958) was at work on a piano reduction of *Irmelin*, and which differs from the autograph score only in several minor cuts (Delius *c.* 1982 see *preface* and *note* of introductory pages). The autograph score itself is undated. Information on Keary's whereabouts in the early 1890s is fragmentary, but in his novel *The Two Lancrofts*²⁷⁶, he displays a detailed knowledge of the Montparnasse district of Paris, including the immediate neighbourhood of the *Rue de la Grande Chaumière*, also frequented by Delius, and where, *inter alia*, he describes the lives of young art students at the *Académie Colarossi*.^{277, 278}

* * * * *

276. Keary 2nd edition 1895, first edition published July 1893 – May 1894.

277. Keary 1895, chapter 17.

278. Another example of the text of *Irmelin* influencing a subsequent literary work may be found in Richard Le Gallienne's *The Quest of the Golden Girl* (1896), in which, whilst relating his various experiences during his search, the protagonist sets out to find his ideal partner, his "Golden Girl". During part of his journey he is guided by a stream which leads him on to fresh encounters, the stream itself acquiring some alchemical significance:

There are days when every stream is Pactolus and every man is Croesus, and thanks to that first and greatest of all alchemists, the sun, the morning I write of was a morning when to breathe was gold and to see was silver [...] So seductive was the sunshine that even the shy trout leapt at noonday, eager apparently to change his silver for gold.

O silver fish in the silver stream,
O golden fish in the golden gleam,
Tell me, tell me, tell me true,
Shall I find my girl if I follow you?

(Le Gallienne 1896 pp 113 – 114).

Lionel Carley writes of Delius' and Le Gallienne's meeting in 1892: 'A February visit to London took Delius to the home of the poet Richard Le Gallienne, where the two men sketched out the plot of an opera based on the legend of Endymion. The project was before long abandoned. However, Delius was to complete *Irmelin*, begun some time in 1890, later in the year.' (Carley 1983 p. 61). For an additional account of the meeting of Delius with Le Gallienne see Whittington-Egan & Smerdon p. 182, and pp 187–188.

Chapter 5: Two Hermetic Operas
II – *The Magic Fountain*: Some Alchemical and Dramatic Sources

According to a letter to Jutta Bell a friend of his former Florida days,²⁷⁹ Delius had planned to write an operatic trilogy, respectively covering themes based upon the North American Indian, the enslaved African and his descendants in America, and on the Gypsies.²⁸⁰ Although the third opera on the Gypsies was never written, *The Magic Fountain*, to a partial degree, deals with the first of these topics, and his third opera, *Koanga*, with the second. However, additional groupings of Delius' operas might also suggest themselves. For instance, Delius' two 'Scandinavian operas' viz. his first, *Irmelin* (c. 1890 – 1892 (?)) and his final opera, *Fennimore and Gerda* (c. 1909 – 1911, based on Jens Peter Jacobsen's *Niel Lyhne*), both explore the potential of the golden section in creating large scale musical structures. Similarly, *Irmelin* and *The Magic Fountain* are tightly linked as a pair by their common underlying alchemical impetus. Michael Tanner, writing on *The Magic Fountain* for the 1999 performances in Glasgow and Edinburgh, somewhat discounts any proposal that the opera's primary concern is the plight of the Indians *vis à vis* European colonization: 'But though he [Delius] was concerned with the life of deprived and exploited people, his concern in *The Magic Fountain* is not that, but with a spiritual quest, a search for fulfilment' (Tanner, 1999). The argument that Delius' first opera *Irmelin* is also 'a spiritual quest' has been presented in the previous chapter. One contrast, in alchemical terms, between the two operas, is that in the case of *Irmelin*, Mercurius is cast throughout as a beneficent agent, who finally brings the two protagonists together in an alchemical apotheosis, whilst in *The Magic Fountain*, Mercurius manifests himself rather in his inimical, destructive and lethal aspect (as tempestuous wind and ocean, or as a poisonous lake and fountain) who initially brings about, but then abruptly terminates, the progress of the alchemical *opus* and precipitates the deaths of the two main characters.

Comments made in Delius' correspondence, show that work on the libretto was already in progress prior to 11 July 1894, at which time Delius suggested to his then co-author, Jutta Bell a version of the end of the opera which largely corresponds to the present published one.²⁸¹

279. Jutta Bell (Jutta Bell-Ranske) 1859 – 1934. See Chapter 12 for a further account.

280. Carley, 1983, letter 54, p. 88.

281. Carley *ibid.* letter 52, p. 83.

A letter of 25 June 1895 from Christian Sinding to Delius confirms *The Magic Fountain* had been finished before that date.²⁸² Lowe²⁸³ and Boyle²⁸⁴ indicate that the libretto had undergone several major changes of plot direction during its preparation, whilst Threlfall states that the final version of the plot was 'apparently entirely his [Delius'] own.'²⁸⁵

Synopsis

Act I Scene 1: Solano, a Spanish nobleman, obsessed with the idea of finding the Fountain of Youth, is trapped in becalmed seas together with the crew of his ship. Whereas Solano ardently proclaims his passion for discovering the Fountain, the crew shows no interest in his quest, and believe they will never return home again safely. Solano attempts, by force of his fledgling magical will, to conjure a wind to drive the ship onwards, but his invocation ends in disaster, with a shipwreck from which only Solano survives.

Scene 2: Solano is washed ashore along the Florida coastline. As he lies unconscious on the beach, Watawa, a princess, and last surviving member of the Seminole tribe, initially approaches him, but quickly retires again as he momentarily regains consciousness.

Wapanacki, an Indian chieftain, and his warriors, subsequently carry the insensible Solano back to their camp.

Act II: Scene 1: Solano, now recovered, questions Wapanacki regarding the Fountain of Youth. Wapanacki tells him about a sacred spring and of Talum Hadjo, an ancient sage, who knows the secrets of the spring, but who lives far away in the Everglades. Wapanacki arranges for Watawa to guide him to the sage. Watawa, however, in revenge for the white man's destruction of her tribe, plots to kill Solano.

Scene 2: Solano and Watawa have reached the Everglades. Solano remains behind whilst Watawa seeks out Talum Hadjo. Talum Hadjo, in the meantime, (and as a partaker of the elixir), recounts some of the predicaments he has endured during his long life down the ages. When she arrives, Watawa confesses her intention to kill Solano by means of a concealed knife. Talum Hadjo advises she abandon her plan as the Fountain itself will bring death to anyone who is unprepared. Watawa leaves and returns to Solano.

Act III: Watawa (ahead of Solano) has reached the dark waters of a lake where the Fountain will appear. She is in deep anguish, as she has been falling in love with Solano, and no

282. Carley *ibid.* letter 57, 94 – 95.

283. Lowe 1974, p. 37.

284. Boyle 1984, p. 221 *et seq.*

285. Threlfall 1977, p. 25.

longer wishes his death. Solano calls Watawa from afar and gradually approaches. After Watawa admits to Solano that her intention had been to kill him, the pair join in an extended love duet, after which they fall asleep in each other's arms. Whilst they sleep, a ballet involving the rising vapours and spirits of the lake ensues, culminating with the revelation of the Fountain of Youth, and of Unktahé, the god of wisdom. The pair gradually awaken from their sleep, and Solano, ecstatic at the appearance of the Fountain, plans to take its waters and obtain longevity. Watawa implores him not to do so, as this will instead mean death to the unprepared. Solano, in a deranged state, invites Watawa to follow him 'unto death'. Watawa prepares for the inevitable and takes the waters of the Fountain, intimating that after her death she will survive in the 'sweet magnolia grove'. Solano, astonished at her death, himself partakes of the waters to follow her.

Narrative Layers of the Plot

At least three main levels of plot are discernible in *The Magic Fountain*. Ostensibly (1) a story based on Ponce de León's discovery of Florida in 1513 and on his alleged search for the legendary Fountain of Youth, (2) the plot, during its unfolding, also passes, in some detail, through the main stages of the alchemist's 'Great Work'. (3) In addition, the modern hermetic 'myth' of the failure of the untrained neophyte, exemplified in Bulwer-Lytton's 1842 novel *Zanoni*, constitutes a further important element of the story.

The Discovery of Florida and the Quest for 'The Fountain of Youth' The main historical details of Ponce's voyage are covered for example, by Fuson (2000). Delius' text, however, makes very little use of any accepted historical data, and at some stage during writing the libretto, he changed the hero's name from 'Ponce' to the more alchemical 'Solano.' However, many fictional accounts of Ponce's voyage and his subsequent quest were published, mainly of 18th or 19th century provenance, and of those, Eugene Lee-Hamilton's long dramatic poem *The Fountain of Youth. A Fantastic Tragedy in Five Acts* shares several narrative motifs with the Delius libretto²⁸⁶. That Delius knew this work seems especially plausible, since the writer, Richard le Gallienne (1866 – 1947) with whom Delius stayed from February 20 – 26th, 1892 in connection with their working together on a future operatic project,²⁸⁷ had reviewed Lee-

286. Lee-Hamilton, 1891.

287. See Whittington-Eagan & Smerdon, pp 182, 187 – 188.

Hamilton's poem a few months earlier.²⁸⁸ In addition, le Gallienne must also have known of Delius' previous sojourn and interest in Florida. Motifs in Lee-Hamilton's poem relevant to Delius' interests and text include:

The failed alchemist: In Act I scene 1 of the poem, Ponce is cast as an unsuccessful alchemist who decides to seek the Fountain of Youth in the New World. The mise en scène of the opening of the poem describes: *A room in the ancestral castle of Ponce de Leon, full of astrological instruments and alchemical crucibles.* In Act V, the Fountain remains undiscovered by Ponce as he lays dying from a poisoned arrow wound.

Becalmed ship and mutinous crew: Act II of the poem describes a ship, outward bound from Spain to Florida, becalmed in tropical waters, and with a rebellious crew. The crew inhabit the 'Forepart of the vessel' (cf. 'forepart of the ship' in *The Magic Fountain*) and suffer from a 'white-hot sun' and an extreme thirst.²⁸⁹ Ponce foretells the rising of a wind by which they finally reach land.²⁹⁰ The two texts also share commonalities of vocabulary and phrasing: e.g. 'a phantom quest' and 'a phantom shore' in Act I of *The Magic Fountain*, 'a phantom island' in the poem.²⁹¹

Ponce de León's source of the Fountain legend: In Act I of Lee-Hamilton's poem, Ponce's main source of counsel on the Fountain of Youth is a book by the [fictional?] monk-wizard Astralphus. ('Yet there is one who speaks, – the great Astralphus. Let me take down his book and read the passage' *He [Ponce] takes down a heavy volume and reads a passage* 'on The Fountain of Youth']²⁹². Similarly, at the opening of Act I of *The Magic Fountain*, Solano 'is especially absorbed in an old book lying open before him' and reads from the text of the book "Far away in the western isles lies the Fountain of Eternal Youth. . ." (the full passage is quoted below).

Ponce (in Lee-Hamilton's poem) postulates that the 'Garden of Astralphus' with its Fountain is identical 'with that of the Hesperides' and concludes "The Fount lies evening-wards and to the West."²⁹³

Alchemical Basis of the Plot. As with *Irmelin*, the underlying dramatic structure of *The Magic Fountain* is both allegorical and alchemical, with the main stages of the alchemist's work being traversed in Act I and continuing in Act III. Interwoven with this, is a second narrative layer, also relating to alchemy, based on the theme of the unprepared neophyte, who, after imbibing the elixir prematurely, either faces madness or is killed outright. Also addressed in the plot is the predicament of the 'successful' adept who may face centuries of human isolation and loneliness. The two themes in this second narrative layer both stem from Edward Bulwer-Lytton's novel *Zanoni*,²⁹⁴ a seminal work of 19th century occultism, and which Delius himself admired (see 3. below).

Stages of the Work. In contrast to *Irmelin*, the *Nigredo* is preceded by a three-step preparatory

288. Le Gallienne, 1891.

289. Lee-Hamilton, 1891 p. 36.

290. Lee-Hamilton, *ibid.* p. 55.

291. Lee-Hamilton, *ibid.* p. 59.

292. Lee-Hamilton, *ibid.* pp 2 – 3.

293. Lee-Hamilton, *ibid.* p. 4.

294. Bulwer-Lytton, 1842.

stage referred to as the *Gross Work*. – the *Nigredo sensu strictu* can only follow the *First Conjugation* which takes place in the *Separatio* of the *Gross Work*.²⁹⁵ Thus in *The Magic Fountain* Act I all three steps of the *Gross Work* are encompassed, whilst Act III continues with the *Lesser* and *Greater Work*, beginning with the *Nigredo* proper. A second contrast between *The Magic Fountain* and *Irmelin* is that the two main protagonists meet earlier in *The Magic Fountain* and so can enact their *Conjugatio*-s at the prescribed times within the entire sequence of alchemical events. In *Irmelin*, where Nils and Irmelin only have their first encounter in Act III, Delius treats the three conjugatio semi-independently from the main alchemical discourse, where the first two conjugations have necessarily been transferred from their normal points of occurrence.

Act I: Gross Work²⁹⁶

Calcinatio: this term implies the reduction of the alchemist's initial raw matter to a state of fine powder.²⁹⁷ Technically this was achieved by roasting in a furnace. Symbolically the process was often depicted by a 'king' (here signifying the philosophers stone in a rudimentary state) being 'roasted' in a furnace or steam bath. Delius deftly translates this symbol into the conditions of unbearable heat and stasis prevailing aboard Solano's drifting ship at the start of Act I: 'On board ship, afternoon and glaring sunshine . . . sailors overcome by heat, are reclining in all positions.²⁹⁸..... night follows night and still ne'er ship nor land in sight; not a breadth of wind since twenty days, – but the molten sea and the hot sun's rays Ah! this terrible calm, this endless space, – in the vault of the sky not a cloud to trace.'²⁹⁹

Solutio: This comprises two overlapping episodes: firstly, the storm sequence leading to the shipwreck and secondly, the loss overboard of Solano and his crew (*circa* bar line 485).

Storm and Shipwreck: In alchemy, these terms represent the disastrous consequences which follow from the inexperience and mistakes made by the operator. This theme of unpreparedness links well with the prevailing message of the *Zanoni* narrative described below. Regarding the terms 'stormy sea' and 'shipwreck' Pernety writes:

The Great Work is also termed 'stormy sea', onto which those embarking are perpetually exposed

295. See Fabricius, p. 98 and Figures 4.18, 5.1 and 5.2.

296. See Jung, 1968 p. 239 (text) and p. 240 (illustration) for following stages.

297. See Holmyard p. 45.

298. These are from the opening stage instructions.

299. *The Magic Fountain*: Solano, Act I bars 205 – 226.

to shipwreck, and that on account of the great difficulties encountered in obtaining any complete success.³⁰⁰

Similarly:

The Philosophers' sea. . . is found everywhere; and the wise can navigate it with a calmness which is in no way affected by winds and tempests. . . It is by exposing themselves to this sea, full of reefs /obstacles for inexperienced alchemists, that such a large number among them become shipwrecked and lose their fortunes³⁰¹

Burckhardt quotes from a graphic account of the storm-shipwreck metaphor taken from the 17th century alchemical tract *Purissima Revelatio*:

Nature is also that measureless sea on which the Argonauts set out. Woe to the sailors who do not know our art! For they may travel their whole life long without reaching harbour. They will find no refuge from the frightful storms. Burnt by the sun and frozen by icy winds they will undoubtedly perish. . . For it is not given to many to reach the shore of Colchis. . . Only the wise Argonauts, who strictly observe the laws of nature . . . can win the precious Golden Fleece.³⁰²

Rex Marinus – the myth of the drowning king – is enacted from the point where Solano (as the 'Old King') is swept overboard into the ocean (*i.e.* the 'mercurial sea') through to his being washed ashore unconscious and subsequently revived and re-established (scene 2). C. J. Jung frequently refers to this alchemical myth.³⁰³ Abraham summarizes:

During the process of becoming the Stone, the king has to undergo a death and resurrection. In the early stages of the opus, the king . . . suffers death and putrefaction as he is dissolved in the original matter of creation. . . This was the death which necessarily preceded rebirth. In the myth of the *rex marinus*, the king is almost drowned in the sea but is saved, renewed and united in the *coniunctio* with his queen.³⁰⁴ . . . emblem 31 in Michael Maier's *Atalanta fugiens* depict[s] the alchemical king (the raw matter of the Stone) being marinated in sea water before he is rescued and taken to dry land (signifying the coagula).³⁰⁵

This last example offers another instance of Delius' skill in the combination and overlapping of symbols. The discourse accompanying *Atalanta fugiens* emblem 31 describes the king's ship (because of his ignorance) sinking in the Red Sea and which is lost with all on board. Only the king survives.³⁰⁶ It is quite likely that Delius was familiar with this famous tract, since in addition to its alchemical interest, it is also musically noteworthy, containing a set of

300. *le Grand Œuvre est aussi appelé mer orageuse, sur laquelle ceux qui s'embarquent sont exposés perpétuellement à faire naufrage, et cela à cause des grandes difficultés qui se rencontrent pour réussir parfaitement* – Pernety, 1787 – see under *Œuvre*.

301. *La mer des Philosophes. [. . .] se trouve par-tout; et les Sages navigent avec une tranquillité qui n'est point altérée par les vents ni les tempêtes [. . .] C'est en s'exposant sur cette mer, pleine d'écueils pour les mauvais Chymistes, qu'un si grand nombre d'entre eux font naufrage, et perdent leur fortune* – Pernety *ibid.* See under *Mer*.

302. See Burckhardt, 121 – 122.

303. See Jung, 1970 p. 273 and footnote 64, p 345; also, Jung, (1968) 327 – 329.

304. See Abraham: under *king*.

305. See Abraham: look under *sea or sea water*.

306. See de Jong 2002, p. 223.

symbolic canons, one attached to each of its 50 emblems.³⁰⁷ Several commentators on alchemy, including Fabricius,³⁰⁸ Phénix³⁰⁹ and Abraham (above) place the drowning king episode, (as Delius does) in the *Solutio* and illustrate their text with the above emblem from *Atalanta fugiens*.

Separatio. This step begins with the king reaching land following his immersion in the mercurial sea, the 'land' representing the coagulation of matter in the alembic. Although Solano still lies largely unconscious on the sea shore, it is here that Solano and Watawa meet for the first time and the first conjugatio is enacted. As in Act III of *Irmelin*, one of the partners of the pairing couple (here Watawa) approaches from a distance, is briefly 'associated' with his/her partner, and then departs to a distance again. Afterwards, Solano himself is carried back to the Indians' camp by the chief and his men. When we next encounter Solano in Act II, he has been fully re-established, but it is not until Act III that the next stage of the alchemical work is begun.

Act III: Lesser Work

Nigredo: The 'lake' at the beginning of Act III is a symbol of the *putrefaction* which, in the alchemical sequence, follows on immediately after the first *conjugatio*. Since no other entry for 'lake' was found in the remaining 18th or 19th century reference works consulted, the symbol appears to have been taken directly from Pernety's *Dictionnaire*:

The Philosophers [= alchemists] have added epithets to the term 'lake'. . . 'lake full of stagnant water', to indicate the putrefaction; 'foetid lake' . . . indicates the dissolution of the matter which is only accomplished when the material has completely putrefied.³¹⁰

The language of the *Nigredo* is traditionally one of deep melancholy, its images often harsh and repugnant, reflecting physical death and decay. Often this language may attest to the anguish and 'depression' experienced by the alchemist himself at this time: 'the difficulty and grief to be encountered at the beginning of the work once more coincide with the nigredo, like the "horrible darkness of our mind" of which Aurora speaks; and these in their

307. See Maier, M., Godwin, J., & Streich, H. (1989).

308. See Fabricius 77 – 79.

309. See Phénix 22 – 23.

310. *les Philosophes ont ajouté des épithètes au terme de Lac*. [. . .] Lac plein d'eau croupie, pour indiquer le tems (temps) de la putréfaction [. . .] Lac puant signifie [. . .] la dissolution de la matière, qui n'est parfaite que lorsque cette matière est absolument putréfiée – Pernety 1787, see under Lac).

turn are surely the same as the "affliction of soul" mentioned by Morienus.³¹¹ Watawa's monologue underlines, in a striking manner, her mood of affliction and anguish:

Heavy, gloomy lie the waters - darkened as by unknown fears.
Thro' the trees the night-breeze moaning, all the flowers with tears.
What can it be, this strange vague anguish floating quiv'ring in the air?
Laboured breathing cramps my thinking, stifled sobs seem ev'ry-where.
Say what is it? tell me flowers,- tell me waters why you weep,
know ye too the force of sorrow? know ye too the force of hate?-
Stifling, burning all one's being,- whilst revenge is forced to wait.³¹²

Albedo. The events of the second *coniunctio* begin from bar 184 with the approaching Solano calling from a distance 'Watawa! Watawa! . . . where art thou hiding?' This point should mark also the juncture of *nigredo* with *albedo*. However, the full arrival at the *albedo* is only later portrayed with the ballet beginning at bar 371 or 385, the interim period culminating in the long love duet of Solano and Watawa. In contrast to *Irmelin*, and as the proportioning infers, the reign of Jupiter is here more firmly aligned with the *Albedo* than the *Nigredo*.³¹³ The arrival of Jupiter is signalled by rising vapours from the lake: 'Vapoury forms of beautiful women, lightly draped in white, rise from the lake and glide gracefully around the sleeping lovers' (bar 385/386 - the women in robes of white denoting the *Albedo*), the subsequent ballet running from bar line 410 (The ballet must represent the rising of the mists of the night from the lake, to bar line 432 the mystic forms vanish, also, slowly waving their long draperies as they disappear in the lake). As has been already indicated, the image of rising and descending vapours was a favourite of Dom Antoine-Joseph Pernety, who uses it frequently throughout his two main alchemical reference works.³¹⁴

The reign of the moon is relatively brief, running from bar line 434 ('the fountain now becomes quite visible sparkling in the moonlight') to 449/453. The symbol employed again differs from the 'dawn' of *Irmelin*: at this point in *The Magic Fountain*, where the dramatic events are played out during the night, it is the moonlight itself, highlighting the mercurial fountain, which indicates the lunar reign.

Act III: Greater Work

The *reign of Venus* extends from bar line 449/453 to 500. As in *Irmelin*, the green colour of Venus, is used to mark the colour of her reign: *A cold green light gradually becomes visible and*

311. Jung, 1968 p. 273.

312. *The Magic Fountain* Act III – bars 77 – 116 – Watawa.

313. See Figure 5.4.

314. Pernety 1758, 1787.

soon floods the whole scene (bar 453). The attainment to the following *reign of the Sun* is somewhat ambivalent: at bar line 469 Solano wakes up, followed by Watawa (from bar 475). Watawa implores Solano not to take the waters of the Fountain which now lies before them. At bar line 500 the colour of the Fountain turns red, the normal colour of the Reign of the Sun, but also probably here foreshadowing the imminent deaths of the two lovers.

Influences of 'Zanoni' on the plot of 'The Magic Fountain'. Delius' immediate plans after arriving in Paris in mid-1888 had included the setting of Edward Bulwer-Lytton's 1842 romance *Zanoni*, initially as an opera, and subsequently as incidental music to accompany his own dramatic version of the novel. From his letter to Grieg of mid-August 1888, written from St Malo, Brittany, Delius was already familiar with *Zanoni* before his arriving in France ('During the time I have been here I have dramatized *Zanoni*, the novel by Bulwer Lytton (I talked to you about it once/ [ich sprach einmal mit Ihnen darüber]).'³¹⁵

Delius' choice of *Zanoni* as an operatic subject at this time was an auspicious one: the same work had been greatly admired by Stanislas de Guaita (1861–1897) a founding member of *l'Ordre Kabbalistique de la Rose-Croix*, (established May 1888),³¹⁶ and who had already referred to *Zanoni* in the first edition of his *Au Seuil du Mystère* (1886) – and who also, in a letter dating from between 1888–1890, had jokingly addressed his then colleague Joséphin Péladan (1858-1918) as 'Mejnour' (a main protagonist in the novel)³¹⁷ During the time of Delius' known association (from c. late September 1893) with 'Papus',³¹⁸ a third edition of *Au Seuil du Mystère* was in preparation³¹⁹ in which the preface to *Zanoni*, (newly translated by de Guaita), together with an appreciation and analysis of the work, was included. Throughout the 1890s, *Zanoni*, in the Lorain and Sheldon French translation (Hachette, 1858) was listed as one of the main recommended study works in the pages of Papus' *l'Initiation, Revue Philosophique Indépendante des Hautes Etudes* – the primary periodical covering Hermeticism, especially Rosicrucian and Martinist interests, in France between 1888–1912.³²⁰ An implication of the above is that Delius may have approached members of the *l'Ordre Kabbalistique de la Rose-Croix* for assistance in preparing his libretto for *The Magic Fountain*,

315. Carley 1983, p. 22; Oelmann 1997, p. 47.

316. Breton, p. 215.

317. See below and de Guaita *et al.* 1952, 115 – 116.

318. 'Papus' was the pseudonym of Gérard Encausse, 1865–1916 – another close colleague of de Guaita's. See chapter 12.

319. This was completed by September 1894, and published during 1895, see Billy p. 38.

320. See Beaufils, 127–128.

including both alchemical advice and sources, and on the adaption of parts of *Zanoni* to the plot. At this time also (September 1894) Delius published with Papus a paper in *l'Initiation* entitled *Anatomie et Physiologie de l'Orchestre*, (and with plans for an additional extended joint publication between them).³²¹

The plot of *Zanoni* is summarized by Wolff³²² and analyses of the novel have been published by Wolff (*ibid.*), and Godwin.³²³ Roberts,³²⁴ traces the entire history of the British Rosicrucian novel, devoting a chapter to Bulwer-Lytton covering both *Zanoni* and his remaining Rosicrucian fiction.

Plot elements of *Zanoni* relevant to those of *The Magic Fountain*, include:

The predicament and fate of the would-be acolyte who, unprepared, or lacking the requisite patience or motivation, is violently ejected from the path of esoteric wisdom and the *elixir vitae*. In *The Magic Fountain*, it is Solano who fulfils this role of an aspiring initiate, and whose character is partly based on that of *Glyndon*, the young English artist in *Zanoni*. Roberts encapsulates Glyndon's reasons for his misfortune as follow: 'It may be a significant factor in Glyndon's failure as a neophyte that he values the secret of immortality over and above its accompanying wisdom and knowledge.'³²⁵ From the opening of Act I Solano's impending fate is already sealed and arises from his ignorance of (what should have been) the prime objective and crucial requisite of his quest *i.e.* a desire for esoteric knowledge and wisdom:

Solano sits [. . .] at a table, covered with open charts and books. He is especially absorbed in an old book lying open before him.³²⁶ ([Solano] Takes the book up with energy and reads "Far away in the western isles lies the fountain of Eternal youth - a fountain ready for those prepared to drink it in Wisdom and truth" So runs the text strangely pregnant with thought and written by one who knew what he wrote-Eternal youth! "a fountain ready for those prepared" - I grasp not the meaning here; are those not prepared who wish and dare without pausing of fear?- But all these mysteries soon will be solved if only the fountain I near then once having drunk of its waters divine Eternal youth, Eternal love, life everlasting is mine. To see nations appear and vanish, civilisations develop and decay to taste all the pleasures that youth can give in a thousand ages, ah! that were to live.³²⁷

From his dialogue in Act II with Wapanacki, the Indian chief, Solano is still motivated by his

321. See Délius et Papus, 1894 and Chapter 11.

322. Wolff (1971).

323. See Godwin 1994, 123 – 130 and Godwin 2006, 213 – 217.

324. See Roberts (1990).

325. Roberts, p. 176.

326. from: *mise en scène*, Act I.

327. Act I bars 98–159.

pursuit of eternal youth,³²⁸ and even towards the close of Act III, at the moment of discovering the fountain itself, Solano's understanding has not altered:

Solano (ecstatically) The fountain! The fountain! So long desired,-
at last, – at last before me – it lies; [to Watawa:] awaken Beloved awaken
awaken to life everlasting,
Life and Youth forever now death defies.³²⁹

Significantly, also, the Amerindian God Unktahé, (here designated as 'the god of *wisdom*') – as if in judgement of their fate, has appeared as a shadow before the sleeping Solano and Watawa, immediately prior to Solano's awakening.³³⁰ The immediate reason for the deaths of Solano and Watawa on imbibing the elixir, is their unpreparedness (*cf. To the unprepared the elixir is but the deadliest poison*).³³¹ C. G. Jung gives similar indications of the dual qualities of the elixir in his alchemical writings: '...it is emphasized that the tincture or divine water is far from being merely curative and ennobling in its effects, but that it may also act as a deadly poison which penetrates other bodies.'³³²

A further mark of Solano's inexperience, is the foundering of his magical Will in his invocation of a wind to propel the becalmed ship onwards, and which ends in disaster with a shipwreck and the death of his crew.³³³ Evelyn Underhill, (in contrasting the objectives of 'mysticism' with those of 'magic') posits the 'limitless power of the disciplined human will' as one of the three axioms of magical practice³³⁴ and with regard to occult evocations, she quotes from A. E. Waite 'The fundamental principle was in the exercise of a certain occult force resident in the magus [...] This was termed the evocation, conjuration [...] but that which in reality was raised was the energy of the inner man, tremendously developed and exalted by combined will and aspiration. . .'.³³⁵ Delius may perhaps have read of the magician's Will (fr. *Volonté*) in e.g. Louis Constant's ('Eliphas Levi') *Dogme et Rituel de la Haute Magie*, (1856) one of the main treatises of French occultism in the nineteenth century. Otherwise he would have been directly influenced by Papus, who was an enthusiastic advocate of the Will: '[Papus] believed in the omnipotent force of the Will, and the actions of the human being on

328. *cf.* Act II bars 121–132.

329. Act III bars 471–488.

330. Act III bars 453–470).

331. *Zanoni* – Book IV, chapter 4).

332. Jung, 1968 p. 297 and p. 299.

333. Act I bars 343–513.

334. Underhill, p. 156

335. Underhill, p. 157.

scattered/random forces, on the individual spirit upon the cosmos'³³⁶

Lastly, in *Zanoni*,³³⁷ Glyndon, according to his vows of discipleship, abandons his plan to marry Viola, but later, during his training with Mejnour, breaches his pledge of celibacy, and succumbs to the beautiful Italian peasant girl, Fillide.³³⁸ Similarly, in *The Magic Fountain*, from the end of Act II, Solano yields to the beauties of Watawa and falls in love with her – (whereas complete sexual abstinence must be observed for a neophyte to be successful). A second element introduced from the novel, is the plight of those who, having successfully undergone the long arduous training towards adeptship and the elixir, are then faced with an interminable lifespan, in which sustained human relationships become impossible. Consequently, the adept's involvement with humanity dwindles and he turns inwards towards an existence of selfish abstraction (Elina Makropoulos, in Leoš Janáček's *The Makropoulos Case* (1923 – 25) following her taking the elixir of long life, faces a similar predicament). In *The Magic Fountain* the character of the Indian sage *Talum Hadjo* directly draws upon *Mejnour*, one of the two famous long-lived adepts of *Zanoni*. The second adept, *Zanoni* himself, younger in behaviour and mien than *Mejnour*, falls in love with a musician's daughter, and facing the problems of longevity, decides to renounce his adeptship and, subsequently, to save his wife's and child's lives, sacrifices his own during the *Terror* of the French Revolution. This theme of renunciation of the esoteric path in favour of human love and mortality is also incorporated into the character of *Solano* in *The Magic Fountain*.

* * * * *

A Sourcebook of Alchemical Symbols used by Delius in 'Irmelin' and 'The Magic Fountain'

Although no single reference work has been identified covering the entire range of alchemical metaphor and symbol used by Delius in his first two operas, a relatively large proportion may be found in Dom Antoine-Joseph Pernety's *Dictionnaire Mytho-Hermétique* of 1787. Although Pernety himself drew on earlier works in his compilation of this volume, his *Dictionnaire* seems potentially important as Delius' most accessible and immediate source of alchemical symbolism, particularly for *The Magic Fountain*. Important entries include:

Brouillard ['Mist' in *Irmelin* Act II - cf. 'vapour' in *The Magic Fountain*] for Pernety's entry on *Brouillard* see under *Albedo: reign of Jupiter* – previous chapter.

336. [(Papus) croyait à la force omnipotente de la Volonté, aux réactions de l'être humain sur les forces éparées, de l'esprit individuel sur l'Univers. (Mercier, p. 213).

337. *Zanoni* – Book III, chapter 11.

338. *Zanoni* – Book IV, chapters 5 – 6.

Fleuve ['River' cf. 'stream' in *Irmelin*] The ancient Hermetic Philosophers. . very often interpreted streams and rivers as an allegorical symbol for their mercury or mercurial water.³³⁹

Fontaine de Jouvence ['Fountain of Youth' see under *Fontaine*]. Alchemists claim that when the ancients speak of this famous fountain [..] one must understand that the perfect elixir of [..] the hermetic philosophers [is being referred to]; this is because they also claim that this elixir is a vital cure, and a universal remedy, which maintains [good] health, and even, so to speak, rejuvenates those who use it.³⁴⁰

Joie des Philosophes [for Pernety's entry see the previous chapter under *The Joy of the Philosophers*].

Lac ['Lake'] for the definition of 'lake full of stagnant water', = the putrefaction etc. see above under 'Lesser Work *Nigredo*

Mélancholie ['Melancholy'] Signifies the putrefaction of the material. The word is applied to the *Nigredo*, doubtless because the black colour, has something 'sad' about it.³⁴¹ (see above under *Nigredo*).

Mer orageuse ['Stormy Sea' see under *CŒuvre*] – referred to above under 'Gross Work – Storm and Shipwreck.'

Naufrage ['Shipwreck'] The hermetic philosophers use this term in describing blunders made by alchemists during their search for the Philosophers Stone, and this because they name their philosophical mercury 'sea'.³⁴²

Planètes [Planets] although probably the most frequently encountered, the planetary sequence offered by Pernety is the same as adopted by Delius in his first two operas i.e. Saturn, Jupiter, Moon, Venus, Mars and the Sun. The colours Pernety associates with Venus are either a saffron yellow or green – the latter colour being used by Delius to signify Venus in both operas.

Serf, ou Serviteur/Serf fugitif [Fugitive servant/serf/slave see chapter 4: Alchemical Interlude; The Fleeing Slave and Fleeing Stag] The Philosophers' Mercury, which they have also named *Fugitive Serf*, due to its volatility.³⁴³

Vapeur [Vapour] [Alchemists] sometimes refer to their philosophical mercury during the time of volatilisation by this name, [this is] because it [initially] sublimates into vapours, to later fall as dew or rain onto the matter at the bottom of the flask, both to whiten and to nourish it.³⁴⁴ (cf. the ballet of the 'vapoury forms' in the *Albedo* of *The Magic Fountain* discussed above).

Various alchemical symbols and allusions used by Delius were not found referenced in Pernety's writings. These included: For *Irmelin*: dawn and sunrise signifying the *Albedo*; the fleeing stag or deer representing Mercurius; a trial, test or ordeal set by Saturn as a symbol of the *Nigredo*; For *The Magic Fountain*: the 'drowning king' motif, including both his 'rescue' and

339. Les anciens Philosophes Hermétiques [..] ont pris très-souvent les fleuves et les rivières pour signe allégorique de leur mercure ou eau mercurielle.

340. Les Alchymistes prétendent que quand les Anciens parlent de cette fameuse fontaine [..] on doit l'entendre de l'éllixir parfait du magistère des Philosophes hermétiques, parce qu'ils disent que cet éllixir est un baume vital, et un remède universel qui conserve en santé, et fait même, pour ainsi dire, rajeunir qui font usage.

341. Signifie la putréfaction de la matière [..] On a donné ce nom à la matière au noir, sans doute parce que la couleur noire a quelque chose de triste.

342. Les Philosophes Hermétiques appellent ainsi les erreurs des Chymistes dans la recherche de la pierre des Sages, parce qu'ils appellent leur mercure mer.

343. Mercure des Philosophes, qu'ils ont aussi appelé Serf fugitif, à cause de sa volatilité.

344. Par ce même terme ils entendent quelquefois leur mercure dans le temps de la volatilisation, parce qu'il se sublime alors en vapeurs, pour retomber en forme de rosée ou de pluie sur la terre qui est au fond du vase, tant pour la blanchir que pour la féconder.

reconstitution; For *both operas*: a clear description of the position of (with Delius) the three potential conjugations within the entire alchemical sequence of events was not located in any of Pernety's writings. Similarly, a description of the exact planetary succession within the *Nigredo*, *Albedo* and *Rubedo* phases was not found. In *Irmelin*, for example *Jupiter* occurs within the *Nigredo*, whereas in *The Magic Fountain* he is ('correctly') the initial planet of the *Albedo*.

The conclusion of 'The Magic Fountain' and Villiers de L'Isle-Adam's 'Axel.'

As intimated by Lowe³⁴⁵ and Boyle,³⁴⁶ Delius' ideas for the libretto of *The Magic Fountain* passed through several stages. Lowe, who quotes from Delius' notes for an earlier version of the plot, summarizes as follows:

At this point, the fountain of youth has just been found by the hero, here called 'Ponce'. Beside the fountain stands the Indian heroine, here called 'Nadgia' [cf. 'Watawa']. At sight of her Ponce cries out: 'Oh last temptation . . . a beautiful Indian maiden'. Instead, however, the Indian maiden prevents his death by persuading him not to drink the fatal waters, and Ponce falls in love with her. [. . .] 'The fountain disappears, and Ponce is found in the woodland alone, with Nadgia by his side. She sings him a farewell and departs. He awakes and walks off as if in a dream.' 'Nadgia. Nadgia' – violent despair.³⁴⁷

The import of this earlier version is similar to the published one, *i.e.* both imply an abandonment and renunciation of an hermetic quest for wisdom and esoteric knowledge. The earlier version differs from the later in that the two main characters return to the relative normalities of their everyday existence while in the final version the pair together decide to forgo physical life altogether in favour of a shared, after-death state-of-bliss. Although otherwise a romantic hero (rather than a decadent or symbolist one), Solano shares several character traits with the Rosicrucian hero of Villiers de l'Isle Adam's play *Axel*, published posthumously in 1890.³⁴⁸ In particular, the endings of *The Magic Fountain* and *Axel* showing some notable correspondences:

In Villier's play *Sara*, Axel's future lover, is initially hostile to him and tries to kill him, firstly with pistols and subsequently with a dagger (cf. Watawa's poisoned knife). Sara and Axel quickly fall in love, however. Sara initially wishes they pursue their lives together travelling in exotic lands. Axel demurs, declaring that the magical realms travelled within Sara's imagination are unattainable in physical reality – he prefers the option of a complete removal

345. Lowe, 1974 p. 139.

346. Boyle, 1984 p. 221.

347. Lowe *loc. cit.*

348. Villiers de L'Isle-Adam, A. (1923); Villiers de L'Isle-Adam, A. tr. Guicharnaud, J. (1970).

from the physical world. Sara is persuaded to take poison and they die together. Earlier in the play, Axel has rejected the teachings of Maître Janus, a long-lived hermetic adept, and instructor of Axel, a situation Villiers may have based on a similar one between Glyndon and Mejnour in *Zanoni*. Villiers himself was known to have studied Bulwer's writings, including *Zanoni*³⁴⁹ however the endings of *Axel* and *Zanoni* differ, and it is the ending of *Axel* which Delius appears to adopt for *The Magic Fountain*. Following the first performances of *Axel* at the Théâtre de la Gaîté Lyrique in Paris on February 26 –27th 1894, a subsequent reading was made in a locality well-known to Delius and 'at the request of the young people of the Latin Quarter' at the Théâtre de la Gaîté-Montparnasse on April 6th, 1894,³⁵⁰ and which Delius may have attended.

Proportioning Strategies in 'The Magic Fountain'

Whereas the dramatic shape of *Irmelin* is 'asymmetrical', in that the musical and alchemical climax is directed towards the close of the opera's final scene, the dramatic trajectory of *The Magic Fountain* is firmly symmetrical, both Act II, as well as the entire work, pivoting around the centrally-placed Indian war dance.³⁵¹ This latter constitutes a 'dramatic interlude' and is 'climactic' only in the sense that it marks the highest level of dynamic and physical exuberance occurring within the opera. In addition, each of the two outer acts (I and III) display within themselves a similar dramatic shape: (thus: Act I moves from the general torpor of the becalmed ship and forlorn crew to a relative optimism at the invocation of the wind and ensuing drama of the storm, but returns again through to the quietude of scene 2 – the centre point of Act I is just before the storm invocation at bar 328/329.³⁵² Act III begins with the extreme melancholy of Watawa's *nigredo* monologue, then proceeds to the ecstatic and heightened mood of Watawa's and Solano's love duet, but ultimately, due to Solano's hubris and the denouement of alchemical failure, ends with the deaths of the two lovers. The mid-point of Act III lies within the duet at bar line 309.³⁵³

In further contrast to *Irmelin*, the use of the golden section is largely avoided in *The Magic*

349. See Villiers de L'Isle-Adam, A. D., & Drougard, E. Volume II: 59–76, 120 and 220–221; also Mercier, p. 146, footnote 68.

350. See Villiers de L'Isle-Adam, A. tr. Guicharnaud, p. 191

351. bars 954/960 – 1040 see Figure 5.1.

352. Figure 5.2.

353. Figure 5.4.

Fountain, and is limited to an unobtrusive 'framing' of the central act.³⁵⁴ The scarcity of GS in the opera might possibly symbolise the ultimate débâcle of the alchemical enterprise and a consequent 'absence of any gold' – a situation already intimated at an early point in the operatic plot. However, several other post-*Irmelin* works of the mid-1890s show a similar absence or paucity of GS proportioning strategies.³⁵⁵ This may be accounted for by a decision of the composer to explore alternative techniques to GS following his earlier elaborate investigations into the use of that proportion. As regards the method and extent of proportioning in *The Magic Fountain*, this is largely achieved, in the two outer (flanking) acts by 2: 1 division, whilst in Act II, 1: 1 patterns are placed uppermost in a hierarchy, followed by a GS pattern and a series of 2: 1 patterns emerging at lower levels. The overall form of the entire opera is a 1: 1 pattern built around the central Indian war dance.³⁵⁶ Apart from the 1: 2 subdivision into the *Albedo* and *Rubedo* phases in Act III³⁵⁷ the proportioning lacks any alchemical symbolism. In general, also, the proportioning used within *The Magic Fountain*, avoids any elaborate series of sub-proportioning, or of overlaying of patterns, a characteristic of *Irmelin* and several earlier works.

* * * * *

Stratification and Lability of Different Textual Elements in Irmelin and The Magic Fountain

A notable characteristic of the first two opera libretti is Delius' propensity variously to overlay or overlap differing narrative elements of the texts in a manner somewhat similar to techniques he used in the proportioning of the music itself, and perhaps also suggesting that this overall approach was in some degree an innate or instinctual characteristic of the composer's mentality rather than a procedure learnt from outside sources. A second distinctive feature of the texts is the 'ambi-valency' sometimes 'poly-valency' of the narrative elements and of individual symbols. For example, Rolf and his band of dancing women tempting Nils in Act II of *Irmelin*, (chapter 4) suggest both Wagner's 'flower maidens' and the alchemical Saturn (as 'old Rolf') setting a task for Nils which must be overcome to exit the *Nigredo*. In the *Magic Fountain*, the hero's name (originally planned to be the historical *Ponce de León*, later altered to the fictional *Solano*)

354. Figure 5.1.

355. For example, *Over the Hills and Far Away* (1895 – 1896) and the *American Rhapsody* (1896).

356. Figure 5.1.

357. Figure 5.4.

would refer primarily to *Sol* (Sp. and L.: the Sun, also Sp. *Solana*: strong sunshine, a sunny place *etc.*) the male principal in the alchemical drama, also to perhaps to the location in Florida where Delius ran an orange plantation (Solano Grove: Sp.: *Solano*: a hot wind), and to the impending deaths of the hero and heroine on imbibing the fountain's elixir, and which proves poisonous (Sp: *Solano*, L. *Solanum* deadly nightshade (second meaning) due to their unpreparedness. Immediately before their deaths, the fountain itself turns red, signalling the fate of the two protagonists, but also (and fully on cue) the onset of the alchemical *rubedo*, the participation in which has been denied to the two lovers. A noteworthy example of Delius' sequestering of existing elements from the 'surface narrative' into an underpinning hermetic metaphor derives from the location of the drama itself, in Spanish colonial Florida, the designation 'Florida' referring to the 'many beautiful trees' encountered there, at the time of discovery by Juan Ponce de León in 1513, (and also perhaps to the discovery occurring at Easter time (*Pascua Florida*)).³⁵⁸ Ponce's legendary quest for the Fountain of Youth completes the metaphor, *i.e.* the fountain in a garden of flowers – a very familiar symbol in alchemy – the Fountain of Youth (*Fontaine de la Jouvence*) indicating in alchemy the final Rubedo stage.³⁵⁹ Delius strengthens this image (of the fountain of youth placed in a garden) in his stage directions for Act III:

The Everglades: a tropical and luxurious swamp. To the left a lake ['lake'= the mercurial waters, *aqua permanens*, eternal waters, from which The Fountain of Youth later emerges] *overhung with beautiful red flowers and vines twining fantastically about.*

Additionally, the storm sequence and shipwreck off the coast of Florida in Act I of *The Magic Fountain*, reflect very frequent historical occurrences reported around the Florida coastline including the eastern sea board of the peninsula.³⁶⁰ Ponce himself experienced difficulties with violent storms during his 1513 voyage.³⁶¹ Delius links the images of stormy seas and shipwreck of the 'surface text' to the alchemical allegory, 'stormy seas' and 'shipwrecks' signifying unpreparedness of the alchemical neophyte, and the failure and breakdown in the alchemical process due to such inexperience.³⁶² Failure of the alchemical procedures due to the inexperience of the operator, and 'death' of Sol and Luna in the mercurial waters following their insufficient 'purification', are two of the major alchemical themes of *The Magic*

358. See Herrera, quoted in Fuson p. 105.

359. See *Fontaine de Jouvence* in Salmon 1695; and Pernety 1787 (quoted above).

360. Singer, p.133 *et seq*, p.167 *et seq* and p. 206 *et seq*.

361. Fuson p.113.

362. See Pernety 1787 *mer orageuse* under *Œuvre*, and *Naufrage*.

Fountain.

Rather than following any standard alchemical allegory, Delius' texts appear to have been influenced by a literary genre probably best known from Gohory's alchemical glosses on the anonymous *Le Livre de la Fontaine Périlleuse* (Gohory 1572) and Colonna's *Hypnerotomachia Poliphili* (1499) as well as Béroalde de Verville's alchemical gloss on the latter work, (published under the title *Tableau des Riches Inventions* – 1600), and also Béroalde's original work *Le Voyage des Princes Fortunéz* (1610). These all involve a romantic quest by the hero for his ideal lover but include symbols of an alchemical quest which have been variously 'read' or 'interpolated' into – or otherwise originally included in – the texts of these stories.³⁶³

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363. Pinkus, p 78.

The history of the libretto for Delius' third opera *Koanga* is an unusually tortuous one. In a letter of July 1894 to Jutta Bell,³⁶⁵ Delius wrote that he was planning to compose an operatic trilogy about the (North American) Indians, the Gypsies, and on the Negroes and quadroons. Having completed the first of this trilogy, *The Magic Fountain* in 1895, Delius wrote again to Jutta Bell (9 February, 1896) intimating that he had chosen a passage from George Washington Cable's *The Grandissimes* as the basis of the third-named subject of his trilogy, and by the end of February had sent her his own libretto to the opera for comment.³⁶⁶ In a further letter (15 July 1896) Delius confirmed to Mrs Bell that C. F. Keary had rewritten his libretto, later stating however (December 1896) that both he and Keary '*had worked together* [on the libretto] & the result is all that I could have wished for'.³⁶⁷ The original form of the opera (with the Delius – Keary text) has never been staged although Act II and excerpts from Acts I and III were given a concert performance at St. James Hall, London in May 1899.³⁶⁸ The first fully staged performance was given in Elberfeld in March and April 1904,³⁶⁹ in a German translation probably made by Jelka Delius.³⁷⁰ However the plot had been radically altered and cut: 'Music and words went out together — a bar here, a page there; the decision to cut must have been made late in the rehearsal period, when there was no time to revise only the words.'³⁷¹ Craig and Page document alterations to the score for this performance, stating at one point that the changes 'completely altered the sense of the plot. . At whose instigation this was done is not known, as there seems to be no correspondence on the

364. As with previous chapters, the contents of chapter 6 were originally intended to include an investigation into the role of proportion in the structuring and dramaturgy of the work under scrutiny – in this case Delius' third opera *Koanga*. In addition, Charles F. Keary's original libretto (which in turn was fashioned from Delius' own earlier ideas for a libretto) was to be examined for any occult or esoteric references or undercurrent which may have been present (during the 1890s, Delius and Keary were both absorbed in esoteric matters). Due to some considerable changes made to the opera, including cuts and interpolations during its early performance history, copies of the original score were required, all printed editions of *Koanga* substantially deviating from Delius' original in some manner. All attempts at obtaining a copy of the original complete score from Florida failed, however. The current chapter, (in the context of synopsis and of textual commentary), is based therefore on HPS 903 (Delius, 1980). Short quotations from Keary's original libretto are included in Delius, F., Keary, C. F., Craig, D. & Page, A (1974), some having been re-quoted in the present chapter. In the absence of the original score, analysis regarding the use of proportion in *Koanga* was not undertaken.

365. The correspondence cited between Delius and Jutta Bell is included in Carley (1983).

366. i.e. *The Story of Bras-Coupé* chapters 28 – 29 in Cable (1880).

367. italics added.

368. Threlfall (1977) p. 30.

369. Threlfall *ibid.*

370. Craig and Page p. iv in Delius *et al.* (1974).

371. Randel (1971a) p.153.

subject.³⁷² Similar distortions of the score ensued in the 1935 revised version.³⁷³ More recently, an attempt to modernize the text in a third revision was made by Craig and Page, who also summarized and compared the texts of the original Cable story with the Delius–Keary libretto, as well as alterations made for the 1904 performance and the 1935 edition of the score. The Craig and Page edition of the libretto was used both in the 1974 and 1980 editions of *Koanga*, as well as for the 1991 volume in the *Complete Edition*.³⁷⁴

Synopsis of the plot of Koanga

The story of *Koanga*, an African prince sold into slavery, is related by an old slave 'Uncle Joe' to a group of planter's daughters. In a prologue to the opera the daughters plead with the old man to tell them again the 'story of *Koanga* and *Palmyra*'. The story itself (Acts I – III) is then presented as a 'flashback' to the second half of the 18th century and to a plantation on the Mississippi delta, Louisiana. In an epilogue to the opera, we return to the planter's daughters who comment briefly on the story they have just heard.

Act I: It is early morning. *Palmyra*, a servant of the planter Don José Martínez' wife *Clotilda*, laments the loss of her African heritage and her plight as a slave. Simon Pérez, Don José's overseer, calls out the African slaves, and their singing from the nearby fields is heard as they begin their work. Simon Pérez then makes an approach to *Palmyra* who rejects his advances. *Koanga*, newly brought from Africa, who is both Voodoo Priest and Prince, is brought in in chains. He places a Voodoo curse on those who sold him into slavery, and like *Palmyra*, laments the loss of his African homeland. He vows to his gods that he will never work as a slave. However, Don José and Pérez coerce *Palmyra* into persuading *Koanga* to submit to their demand that he work, and, finding that he is strongly attracted to *Palmyra*, *Koanga* agrees under the condition that he and *Palmyra* marry. Whilst Don José approves this move, both Simon Pérez and *Clotilda* strongly object to such a marriage.

Act II: Simon Pérez and *Clotilda* together plot to prevent the wedding of *Koanga* and *Palmyra*, with Pérez himself intending to marry *Palmyra*. On the day of the wedding, *Palmyra* and *Koanga* each dedicate themselves fully to one other, but also both sing of their lost homeland and of their predicament as slaves. *Palmyra* then performs a dance, *La Calinda*, before *Koanga*. However, when the slaves follow with a ballet, *Palmyra* is suddenly

372. Craig and Page *ibid* pp iv – v.

373. Craig and Page *ibid*. p. v; Delius (1935).

374. *i.e.* Delius *et al.* (1974), Delius (1980) and Delius (1991).

abducted from the scene by Perez and a few servants. Furious, Koanga approaches Don José, demanding the return of his bride. The two men fight, and Don José falls. Koanga, kneeling amongst the gathering with arms outstretched, invokes the Voodoo gods, and places a triple curse on the whites who have enslaved him. He then escapes into the dense forest. Amid flashes of lightning, he is heard in the distance avowing his Voodoo faith and calling that he may be protected by his god from harm.

Act III: A glade in the forest at nightfall. Whilst Rangwan, a second Voodoo priest, awaits the arrival of Koanga their chief, a gathering of escaped slaves invokes the Voodoo gods. Koanga arrives with a band of followers. A ceremony begins whose aim is to call on the Voodoo deities to help establish and protect a free society of negroes under Koanga's leadership. As the ceremony culminates in a wild dance, Koanga has a vision of Don José's distant plantation; he sees that it is the African slaves who are dying from his curse and not the whites. He hears Palmyra's voice and pleads with his gods to protect him in his resolve to remain and establish a kingdom of former slaves. However, he again weakens and decides to turn his back on his Voodoo vows, returning overnight to Don José's plantation. As he arrives, he finds Palmyra, also weakened by the curse, being harassed by Perez into marriage with him. Palmyra demands of Koanga that he slay the fleeing Perez and 'kill him like a dog.' Koanga dispatches Perez with his spear but is then himself caught by a posse of horsemen who scourge him with their whips. Koanga is brought in on a litter, and awaiting the judgement of his gods, he has a vision of his African homeland. He then dies in front of Palmyra. Palmyra, cursing the whites and renouncing her Christian faith, stabs herself and dies.

The epilogue of the opera returns to the scene of the opening prologue as above.

Comparison of the opera libretto with Cable's original story shows that substantial differences exist between the two texts. In the opera libretto the figure of Koanga is transformed into a much nobler and more powerful being than in the Cable original: he now becomes a priest possessing not only magical but also psychic powers, and who is also a potential leader of his enslaved peoples into freedom. The several passages which demean Koanga in the Cable original, including Koanga's drunkenness and unsuitable apparel at his wedding, his awe of, and degrading prostrations before the white woman Clotilda, have all been expunged in the opera libretto. More emphasis is also placed on the 'otherness' and grandeur of the African homeland of Koanga and Palmyra than in the original text, and the

bond between Palmyra and Koanga is more intense and sustained than in the original story. However, in the opera Koanga has one fatal character flaw which eventually leads to his downfall and death: his weakness for Palmyra overrides his covenant with his Voodoo gods, forcing him to dishonour and turn away rapidly from the various Voodoo oaths and pacts made during the story. Koanga himself is aware of this betrayal and its consequences for him and to which he constantly refers:

Koanga: Can I hope to win the lovely maid's [Palmyra's] affection? Oh, were she mine!
God of my fathers, ancient pow'rs, heed not the vow I made; she bides near, ye are far.
Voodoo, temper the force of my oath! Jealous god, be thou not aveng'd on me, for thou art far, while she bides near. [*Koanga* Act I]

Hear me, god Voodoo;
I have betrayed my trust,
I have forsworn my faith,
False to my fathers, now on thee do I call.
I know thy secret pow'r,
Reject me not, and grant the gift I crave! [*Koanga* Act II]

Koanga [dying] Oh Voodoo, I have forsaken thee, but now I do repent, and wait thy sentence, god! [*Koanga* Act III]

A further portent of Koanga's fate is the decline of his magical powers which is signalled by his curse upon the whites in Act II going amiss, misdirecting instead against the captive slaves on the plantation.³⁷⁵

All the above alterations strongly support the view that in *Koanga* we are again faced with another multi-layered text which is outwardly and most immediately strongly anti-slavery in its stance but at the same time covertly pursues an esoteric course:

Koanga and Zanonì: The figure of Koanga in the opera is influenced by the eponymous hero of Bulwer-Lytton's *Zanonì*, a long-lived adept of ancient standing, but of youthful appearance and magnetic personality, who, falling in love with a musician's daughter Viola, decides to break with his fraternity and so terminate his longevity. His decision leads, *inter alia*, to the gradual loss of his occult and psychic powers. In turning away from the 'ideal' to the 'real' ('real' meaning here an 'everyday reality') Zanonì becomes enmeshed in the events of the French Revolution, and to save the lives of his wife and child, he eventually loses his

375. However, in the opera libretto the question is left open as to whether the slaves are dying through the magical efficacy of Koanga's curse or rather as a result of their own deep superstition. In the opera, the plantation owner, Don Martinez, remains unaffected by the curse, although in the Cable text he dies from a fever, having previously upbraided his slaves for their superstitious belief in Koanga's curse.

own at the guillotine.³⁷⁶

An important underlying dynamic of *Zanoni* is its basis in Platonic mysticism where the soul is described as progressing through four stages. In the order presented in *Zanoni* these are: the musical, the telestic or mystic, the prophetic and 'that which belongs to love.'³⁷⁷ In *Koanga*, the last three of these stages are clearly adumbrated in Act III, the Voodoo ceremony referring to the telestic or mystic, the future establishment of a society of freed slaves (the objective of the Voodoo ceremony) pertaining to the prophetic stage:

Koanga: Our day of golden freedom soon shall dawn. Voodoo, now grant
thine aid! [. . .] Naught upon this earth I hold so dear, as my lost country's
cause and fame. – *Koanga* Act III)

and, as a result of a vision, Koanga's turning away from this ideal to save Palmyra, representing the final stage, the soul's ascent to, 'that which belongs to love':

Koanga: I hear a far-off cry, a woman's wail of grief [. . .] Again the cry, and
there is none to answer! She must perish before I reach her side! [. . .] Wait, I
come to thee! – *Koanga* Act III.

Regarding the initial stage of the soul's progression (through music), Delius may have intended the first two acts of *Koanga* to symbolize this phase. The opera is remarkable in introducing several songs (heard sung by the black slaves working in the fields) into the musical structure. These culminate in *La Calinda* sung and danced before the abduction of Palmyra at the wedding ceremony in Act II. Delius' admiration for the singing of African workers is well known, and apart from *Koanga* itself is also affirmed in the later work *Appalachia*, as well as being referred to in his own writings.³⁷⁸ The experience of hearing

376. Helena Blavatsky (1831–1891) normally a great admirer of, and much influenced by Bulwer-Lytton's writings, strongly disagreed with Bulwer's idea in *Zanoni* of an advanced adept turning away from his esoteric quest in favour of conventional human life, love, marriage *etc.* and which she regarded as apostasy. Addressing this issue, she wrote: 'As regards the highest point of adeptship, he is as clearly wrong as was Bulwer when he so gloriously depicted his Zanoni as yielding up pure wisdom for the brighter prize of sexual love—we mean of the love of man, as man, for woman as the complement of his own nature. For the love of the adept burns only for the highest of the highest—that perfect knowledge of Nature and its animating Principle. . . .' (Blavatsky, 1883 pp 124 – 126). However, Delius himself was clearly fascinated by Bulwer's alternatives (of holding steadfastly to, or moving away from, an esoteric ideal) as his operatic characters *Nils*, *Solano*, *Talum Hadjo* and *Koanga* all testify.

377. For a description of Plato's 'four kinds of Mania' see the introductory chapter to *Zanoni*. Wolff has clarified Bulwer's source for this passage as deriving indirectly *via* the scholar Hermias, from Plato's *Phaedrus*. In his commentary, Hermias has altered Plato's original ordering of the *mania*, Bulwer having adopted Hermias' re-ordering. Bulwer's probable source for the Hermias commentary was from a recent translation by Thomas Taylor (Wolff pp 160 – 62). Keary, something of a Cambridge polymath, had already published papers in Greek philosophy, and had quoted frequently from ancient Greek sources in his academic works, and seems more likely to have introduced these Platonic elements into *Koanga* Act III than Delius himself (cf. Keary 1881, 1882).

378. For instance, in his foreword to a German translation of James Wheldon Johnson's *The White Negro, A Life between the Races* Delius writes of his experience of hearing black workers singing in Florida as follows: 'Although I had been raised in classical music, a whole new world now opened up. I felt the music of the Negro people as

distant African voices in Florida was said by Delius to have been the original cause impelling him into his life as a musician.³⁷⁹

Voodoo-ism: A major feature of the Delius/Keary libretto not present in the original Cable text is the inclusion in Act III of the Voodoo ceremony. This comprises an initial invocation of the Voodoo deities which leads to a rite of blood offering, the blood being supplied by the slashing of their arms of the two officiating priests Koanga and Rangwan.

The episode derives in part from Keary's 1891–92 occult short story *The Four Students*³⁸⁰ in which the students concerned invoke (malevolent) spirits to aid them in forming a 'mystic pact' among themselves. This is followed by the students slashing their arms in a bloodletting rite. The whole escapade falters badly however, due to both the inept conduct of the ceremony and to the students' lack of seriousness and their prankishness. The story is again directly influenced by *Zanoni* being set in the years leading up to the French Revolution, and where the three of the students successively lose their lives on the scaffold at the behest of the fourth, who had become a diabolical agent in the Revolution. The Voodoo ceremony in *Koanga* elsewhere shows further signs of Keary's careful research and preparation, with both the chosen location and all the main stages of the Voodoo ceremony being covered in the plot.^{381, 382}

something completely new. It was both natural and deeply felt. I sensed that the Negroes were far more musical than any other peoples I had encountered. Their music arises naturally from within, as an expression of the soul of a people, who had suffered greatly. It [.] was always suffused with personal experience and with human warmth. [Obwohl mit klassischer Musik aufgewachsen, ging mir nun eine ganz neue Welt auf. Ich empfand diese Negermusik als etwas vollkommen Neues. Sie war natürlich und zugleich tief empfunden. Ich fühlte, daß die Neger weit musikalischer waren als alle Menschen, denen ich bisher begegnet war. Ihre Musik kam ungekünstelt und unerlernt von innen her als Ausdruck der Seele eines Volkes, das viel gelitten hat. Sie war [.] immer von persönlichem Erleben und menschlicher Wärme durchströmt].

379. See Fenby & Lloyd (1996) p. 103.

380. Keary (1891 – 92).

381. The location for the ceremony reads: *a glade in the dense forest, Will-o'-the wisps shine over the marshes* (Act III stage directions). The preliminaries and the main stages of the ceremony include: the awaiting of the arrival of Koanga and his attendants, the calling upon the Voodoo gods, the blood sacrifice followed by a 'wild dance' performed by the escaped slaves. Compare this to a Voodoo *envoûtement* ceremony as described by de Mirville and quoted in de Guaita: 'The scene, takes place in the depths of a most impenetrable forest [.] or in a plague-stricken marsh: – the call of the faithful, the declaration of the presence of the [Voodoo god] *Obi*, [.] the slaughter of a goat, the orgiastic dance, wild cries [.] – these describe the complete course of the mysterious rite.' (*La scène se passe au fond le plus impénétrable de la forêt [.] ou dans les marais pestiférés. L'appel nominal des fidèles, la constatation de la présence d'Obi, [.] l'égorgement d'une chèvre [.] la danse orgiastique [.] des hurlements épouvantables: [.] voilà tout le programme de la fête mystérieuse . . .*) Guaita 1891 pp 189 – 190 from Mirville vol. 5 317 – 318. Note that for the opera libretto, Keary has retained the main features of a Voodoo ceremony, but replaces the goat sacrifice as described by de Mirville with the blood ceremony from *The Four Students* (as detailed above). He has also deleted from the opera plot several of the more extreme (reputed) Voodoo practices listed by de Mirville.

382. August Strindberg was likely to have been familiar with the Mirville/de Guaita description of the Voodoo

Koanga's Visions: a further striking feature interpolated into the opera libretto is Koanga's gift of vision and of associated psychic phenomena, which establish him firmly as an advanced and experienced adept, contrasting him with the floundering neophytes of *The Four Students* or with Solano in *The Magic Fountain*. Keary was deeply interested in the cases of visionary experiences reported in early European historical documents,³⁸³ and in his fictional writings of the 1890s, descriptions of visionary episodes are frequent.³⁸⁴ In *Koanga* Act III, Koanga has a vision of Palmyra and of the African slaves at the plantation he has escaped from which forces him to return there.³⁸⁵ The detailed nature of the vision implies that this was by direct perceiving by Koanga of distant events (and without the interception of an 'agent' who transmitted the scene by telepathic means).³⁸⁶ The dying Koanga's final words imply that he has a further 'remote vision' of his distant African homeland:

Koanga (half raising himself) I see them all, the priesthood, singers too, they dance, they dance; Oh Voodoo, they call on thee, arm them with secret pow'r, their ways prepare! – *Koanga* Act III.

The term *envoûtement* was in frequent use in French occult circles during the 1890s. It had the special meaning of harming one's enemies by magical means but where the victim of the magic was distant from the perpetrator. The converse case, where the victim of a curse or spell were present or near at hand, was termed *maléfice*.³⁸⁷ In *Koanga*, there are instances of both types of magic being practised and where they are effected through invocation of the Voodoo gods:

envoûtement described in the previous footnote and may have conceivably originally brought Delius' attention to the passage. For further information, see the section on Strindberg in chapter 12.

383. For cases of visions reported in early European documentation see Keary, C. F. (1882) Chapter 8 pp 425 – 429 and Keary, C. F. (1891)

Chapter 3 pp 95 – 98.

384. cf. Keary, C. F. (Nov 1895/Jan 1896) *Herbert Vanlennert* and Keary, C. F. (1896) *Elizabeth*.

385. Further examples of visions of events occurring at a remote distance (cf. *Koanga* Act III) may be found in Keary's contemporary fictional works cited in footnote 21 above. A remarkable historical instance of remote vision is the case of the nun Anne Catherine Emmerich related in *Surprising Mystics* who was able to describe in detail the topography of places never visited, and also the social customs of peoples there. Sir W. M. Ramsay concludes: 'To my thinking, the only probable explanation of the quite vivid and substantially correct descriptions she gives of localities in Palestine, Syria, Asia Minor, Cyprus *etc.*, is that she did possess some abnormal power of visualizing clairvoyantly places far remote' see Thurston (1955) pp 90 – 92.

386. On this topic, see the contemporary references to examples of remote viewing collected by members of the *Society for Psychical Research*: for example, in Gurney *et al.* *Phantasms of the Living* I xxv § 5. *Transferences of mental images of concrete objects and scenes* [pp] 254 – 566. 'Some of these impressions are so detailed and vivid as to suggest *clairvoyance*; nor is there any objection to that term, so long as we recognise the difference between such *telepathic clairvoyance*, and any supposed *independent* extension of the percipient's senses' [pp] 266 – 268. That is, in Koanga's case we would be more likely to be dealing with a (clairvoyant) independent extension of the senses than with a case of telepathic transmission (which would involve a second person).

387. See de Guaïta (1891) pp 182 – 183.

Koanga [laying a curse on his enemies in Africa]: O Voodoo Manian, my fathers from your graves revenge me, revenge me on the vile Myangwa. Ye hosts arise again and let the traitors' blood in the rivers flow! Let them be nailed unto a thousand piles! Nay more! A heavier curse, – Send them beyond the sea for white men's slaves! – *Koanga* Act I

Koanga: [laying a curse on the whites at his abortive wedding ceremony]

Hear me, god Voodoo;
[. . .] now on thee do I call.
I know thy secret pow'r,
Reject me not, and grant the gift I crave!
Let all my white companions learn what magic may perform,
That on their heads descend the worst of mortal woes,
The triple curse on land, on air, and flood:
From water ling'ring death, starvation on the
earth, and tainted fevers to corrupt the air!
Now with this threefold evil visit them and let
thy thunder wake applause!

This interpolation of the *envoûtement* by Koanga at his initial entry may have held a special significance for Delius: Delius relates that following a visit by himself and Edvard Munch to see Strindberg, (then living at the Hotel Orfila in the rue d'Assas), Strindberg disclosed that he thought Munch to have been trying to kill him. Similarly, Strindberg had earlier confided with Delius that he thought that Stanislaw Przybyszewski, a Polish writer and dramatist, and a colleague of his Berlin days, had come to Paris to kill him.³⁸⁸ These episodes had become conflated in Strindberg's *Inferno* where Munch is cast as a magical agent involved in Przybyszewski's attempt to kill Strindberg by *envoûtement*.³⁸⁹ Strindberg's belief that Munch and Przybyszewski were plotting to kill him lead to an estrangement between Munch and Strindberg, and their former friendship was never fully regained.³⁹⁰

With the above summary in mind, it is possible, to some extent, to identify those elements of the *Koanga* plot which may have been attributable either to Delius or to Keary. Delius' long-standing involvement with Bulwers' *Zanoni*, including his portrayal of Mejnour and Glyndon as respectively Talum Hadjo and Solano in *The*

388. See Delius, F. (1920).

389. For a full account of this episode see Prideaux (2005) p. 165 *et seq.* For a history of Strindberg's mental health during his stay in Paris during the 1890s see Brandell 1974. Further instances in which Strindberg believed he was the victim of *envoûtement* are cited by Szalczer in Houe *et al.* p. 106 and in Mary Sandbach's introduction to Strindberg *et al.* 1979 p. 55.

390. See Dittman 1982 Chapters 15 and 16. Another, widely publicised example of an alleged *envoûtement* arose when one of the major figures in French occultism, Stanislas de Guaita was accused by the author J. K. Huysmans of murdering his [Huysmans'] former friend, the Abbé Boullan, with the result that, during 1891, several duals between various Parisian occultist figures ensued. The story is entertainingly related by James Webb (155 – 160).

Magic Fountain, suggest that the re-fashioning and transformation of Koanga's character in the libretto would have been initiated by Delius' himself. Thus, in *Koanga* and *The Magic Fountain* we have the elements of an operatic diptych which explores three different situations of those in metaphysical or magical pursuit as expounded in *Zanoni*.³⁹¹ In the case of Koanga himself, emphasis is placed on the flouting of his allegiance to his Voodoo gods, rather than to his pursuance of any long-term occult trajectory. This change may have been necessitated by the lack of any subsuming alchemical quest in *Koanga* and that therefore Koanga would have no prospect of a life extending over the centuries.

For reasons given above, Keary would have introduced the visionary material into the plot and, from his background in ancient history and anthropological themes, would have perhaps been more likely to have contributed details of the Voodoo ceremony than Delius. Apart from the Tristanesque conclusion (in the death of the two lovers) Act III of *Koanga* would have originated from Keary.

The language of the original Keary–Delius libretto for *Koanga* has been criticized by several commentators based on its ornate style and lack of any attempt to follow the Louisiana vernacular of the period. This criticism has often been levelled within the context that *Koanga* constitutes the first 'Afro-American' opera, its date of composition preceding both Scott Joplin's *Treemonisha* (1910) and George Gershwin's *Porgy and Bess* (1934).³⁹² However, as has been outlined in this study, Delius' first three operas all follow an esoteric course, and are unified by an inter-dependence and development of their shared motif of sustaining an allegiance to a mystical-ascetic life-style or mystical quest. The language used in *Koanga* and its predecessors reflects therefore the magniloquent or portentous style of nineteenth century occultism. For language which has been criticized in the *Koanga* libretto we need only to turn, once again, to *Zanoni* for a probable source:

391. *i.e.* the novice who may variously lack the initial qualities and determination to continue, contrasted with the advanced practitioner who may either wish to remain steadfast on his journey, or, violating his vows and pledges to his guiding deities, powers *etc.*, turns away, abandoning his quest in pursuit of human love and involvement. In the first and third of these situations, the would-be seeker is punished for his transgression, often with mental trauma or death, whilst in contrast, the unswerving initiate who doggedly pursues esoteric knowledge faces isolation and eventual entrapment in a world indifferent to any human involvement or contact.

392. See: Randel, W. (1971). See also: the *Preface to the Revised Libretto of Koanga* in: Delius, F., Keary, C. F., Craig, D., & Page, A. (1974); Depardieu, Benoît (2009) and Saylor, Eric (2012).

The dawn begins to gild the East ³⁹³ *Koanga* Simon Perez, Act I Delius – Keary text.

The sun will gild the mountain-top before it shines *Zanoni* Book II Ch. 7.

Now bowing in the dust, upon thy name August ³⁹⁴. . *Koanga*, Act II of the Delius–Keary text

How clear all the ensuing corruptions of the august name . . . *Zanoni* Book VI Chapter 7
(there are twelve other instances of the use of the word 'august' in *Zanoni*).

This could imply Delius' wording in his original libretto had been retained by Keary for his initial revision of Delius' text.

Concerning a criticism made by Saylor of the *Koanga* libretto, viz 'the dramatic portrayal of Koanga and Palmyra reflects period beliefs about the Otherness of blacks generally' or that 'tropes of racial Othering' informing the opera's plot and characterization have not [been eliminated in the 1974 revised libretto] ³⁹⁵ the author has not taken into account that the character of Koanga is one of several recurring instances in Delius of the *wholly other outsider* who is both of exotic origin and appearance, gifted with supernal powers or knowledge, and a potential leader away from the commonplace into a sublime immanent or metaphysical state. Examples in Delius include the Hunter in *Paa Vidderne*, Nietzsche's *Zarathustra* in *A Mass of Life*, and the Dark Fiddler of *A Village Romeo and Juliet*, as well as Zanoni himself in the projected opera of 1888. Thus, for Delius, this dramatic 'othering' seems more likely to have had some mystical or esoteric connotation (rather than denoting any racial or racist viewpoint).

* * * * *

393. quoted in: Delius, F., Keary, C. F., Craig, D. & Page, A. *ibid.* on p. v

394. quoted in Saylor *ibid.* p. 96.

395. Saylor *ibid.* p. 79 and p. 84.

In Chapter 5 mention was made of a lack or scarcity of GS proportioning in works written over the period of six or so years which followed the composition of *Irmelin* c. 1890 – 1892. Belonging to this category are Delius' second opera *The Magic Fountain* (c. 1894 – 1895), and two orchestral pieces *Over the Hills and Far Away* (c. 1895 – 1897) and the *American Rhapsody* (1896). Also, (based on a preliminary analysis of the published score), Delius' third opera *Koanga* (1896 – 1897) appears to lack any GS content.³⁹⁷ However, the choral and orchestral piece *Mitternachts-lied Zarathustras* (1898) and the symphonic poem *Paris* (1899) both reintroduce the technique of GS proportioning and so mark the beginning of a fresh period of GS elaboration and exploration which was to last until the early 1920s when such works as the *Cello Concerto* and the *Songs of Farewell* were composed.³⁹⁸

Sea Drift (1903/04)

Initially *Sea Drift* might appear to lack any proportioning involving GS. This is due to the fact that the primary (functioning) GS point (L: S, at bar line 295),³⁹⁹ rather than being linked to any conspicuous feature in Delius' music, marks instead a crucial stage in Whitman's *text* i.e. the point at which the bird begins his prolonged final lament, which lasts to the end of the work, and which, in Whitman's text, is italicized throughout:⁴⁰⁰

Narrator:

The white arms out in the breakers tirelessly tossing,
I, with bare feet, a child, the wind wafting my hair,
Listen'd long and long.

Narrator:

Listen'd to keep, to sing, now translating the notes,
Following you my brother.

Bird:

Soothe! soothe! Soothe!

} sung
together

396. A brief analysis of *Two Pieces for Small Orchestra* (1911 – 1912) was given in Chapter 1.

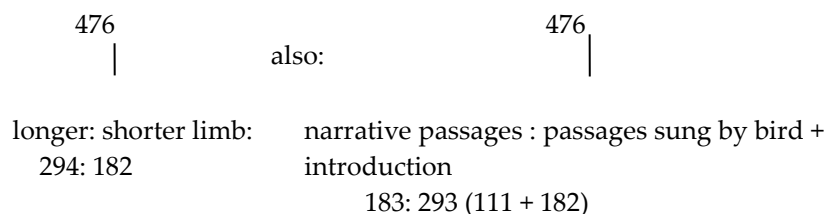
397. For problems of working with *Koanga* see Chapter 6. Several larger works of this post-*Irmelin* period were not examined. They included: the *Seven Danish Songs*, orchestral and original piano versions, (1897 – ?1898), the *Piano Concerto* (first version 1897 revised 1906/1907) and the Symphonic Poem *La Ronde se déroule* composed 1898 – 1899 but revised in 1900.

398. For an analysis of the *Mitternachtslied Zarathustras* see Figure 7.7 below. In the symphonic poem *Paris* (not illustrated) Delius constructs a switched CGSP spanning the entire work – 95 || 112: 181 || :57 bars – and pivoting at bar line 208 (cue 18, *Molto adagio*). A second GS member (63: 100 bars) also pivots at this point so forming a two-member GS Type II hierarchy. A type I primary GS division spans the 394 bars between bar line 52 (cue 4) and the end of the work. This divides at bar line 296 (cue 25+1), with each of the two resulting limbs being further subdivided by Type I GS.

399. See Figure 7.1.

400. For the text of *Sea Drift* see Figure 7.2.

From this GS point a five member L: S GS hierarchy is constructed whose end points mark successively the incipits of stanzas 2, 4, 6 and 8. An additional important feature of this hierarchy, is that the 294- bar limb of the topmost member has been subdivided by Type I GS and rearranged as shown – and it is from this subdivision, that a picture of the overall GS structure of *Sea Drift* emerges:



The above bar values all lie within the GS summation: 476, 293, 183, 111 (based on the rather unusual series: 474, 293, 181, 112, 69, 43, 26, 17, 9, 8, 1). Superimposed upon this initial Type I partitioning are the two Type II hierarchies, which are involved with positioning of stanzas and with the two climaxes. The second of these two hierarchies is built around the main climax at bar line 334 and (by analogy with some early Paris works) should normally include one division which links with the second climax (at bar line 412) by means of GS proportioning – a situation which also seems very plausible here. An important aspect of the music following the initial climax, is that, rather than displaying a gradual dissipation of energy in a prolonged 'descent' phase, the music instead 'collapses' suddenly into the C# minor *a cappella* passage *O rising stars!* – marked *molto tranquillo – lento ma non troppo* – one of several striking variants of the basic 'ascent' structure found in Delius' mature music.

A Mass of Life – (1904 – 1905)

Together with *A Village Romeo and Juliet*, *Sea Drift* and other works of Delius' early maturity, *A Mass of Life* became relatively well known particularly in Germany and Austria at a time when Delius' music was still little appreciated in Britain. Early admirers of the *Mass* included Béla Bartók (1881 – 1945),⁴⁰² Alban Berg (1885 – 1935),⁴⁰³ and Carl Schuricht (1889 –

401. See stanzas 8 – 10 in Figure 7.2.

402. Bartók, Kodály and Delius first met at the *Tonkünstlerfest* at Zürich in 1910, where Delius' *Brigg Fair* was performed on 26 May. A close friendship developed between Bartók and Delius during this time, and according to Kruse, his meeting with Delius had made a 'profound impression' (*einen tiefen Eindruck*) on the younger composer (Kruse p. 21). Correspondence between Bartók and Delius continued from 1910 to ?1919 (Kruse p. 36), after which time Bartók received news of Delius via Peter Heseltine and Cecil Gray (Gillies, chapter 7). On 17 February 1911, Bartók and Kodály attended a performance of *A Mass of Life* in Vienna under Franz Schreker, Bartók finding Delius' use of the wordless women's chorus particularly noteworthy and innovative. Although he thought the work uneven in style, he regarded the last three numbers of the *Mass* as 'perfect from every point of view' (Bartók 1911).

1967),⁴⁰⁴ with, of these, Bartók forming a close personal friendship with Delius. Following Sir Thomas Beecham's championing of Delius' music, the work became well established as a repertoire piece in Britain, its stature being recognized by several British composers including Philip Heseltine (1894 –1939), Havergal Brian (1876 – 1972), Kaikhosru Sorabji (1892 – 1988)⁴⁰⁵ and more recently by British musicologists including Deryck Cooke and Derrick Puffett.⁴⁰⁶

Overall structure

As was the case with several earlier works, the overall structure of *A Mass of Life* can be envisaged as arising from a descending hierarchy of division, subdivision and pattern formation, largely deriving from GS proportioning.⁴⁰⁷ Thus initially, both a primary GS division in crotchet beats, and a primary GS pattern in bars, traverse the entire work.⁴⁰⁸ However, from this point on, each part of the *Mass* is treated separately: Part I is laid out as a tripartite GS pattern,⁴⁰⁹ whilst Part II comprises two interlocking patterns, the first a 2: 1 pattern, the second a tripartite GS pattern (enclosed in a 64-bar frame).⁴¹⁰

Pattern 2 (= Mass Part I)

403. On the day following Bartók and Kodály's attendance, Berg was present at a second performance of the *Mass* under Schreker. In correspondence with Arnold Schönberg, (and perhaps out of deference to his teacher's own tastes) Berg appeared hostile to Delius and to several other contemporary composers (including Debussy). However, Jascha Horenstein in his reminiscences of Berg, Schönberg and Webern states that of the three composers, Berg was by far the most cosmopolitan in taste and outlook, admiring for instance Debussy, Delius and Scriabin. On Berg's cosmopolitanism and his views on Delius Horenstein states: *Alban Berg. .was not a provincial; he was very different from Schönberg and Webern — this was that [he was] the only man who was more, what you could say to a certain degree, un homme du monde, he was more a man of the world. Though he did not travel very much at this time, he knew something about the French school. He had an admiration for Debussy, for Ravel. He knew, I know, [and] he talked once with me and he was very impressed by Delius. He spoke — we talked about the Messe des Lebens, The Mass of Life, by Delius — he was very much interested by it. He was very impressed by the thinking of Scriabin . . .* (Horenstein 1973). However, according to Moldenhauer (p. 140), Webern was also curious about the *Mass* and made enquiries about it, "with what results we do not know" (Puffett 2001 p. 522). Also, in his analysis of Webern's *Im Sommerwind* Puffett presents evidence of Webern's early (i.e. prior to becoming a pupil of Schönberg) broad interest in contemporary music and suggesting that one of Webern's influences in writing the work may have been Delius' *Paris* which had been performed in Berlin in November 1902 (Puffett *ibid.* p. 520).

404. Carl Schuricht had met Delius at the first performance of *Sea Drift* in Essen in May 1906. He subsequently conducted, between 1910 and 1963, several performances in Germany of *A Mass of Life* and *Sea Drift* (Gottlob p. 238).

405. See Heseltine pp 100 – 106, Brian pp 118 – 131 and Rapoport. The always entertaining Kaikhosru Sorabji (himself of Parsee lineage) wrote of the *Mass*: *It is always a matter of great regret to me that Mr. Delius should have wasted such glorious music on the preposterous drivel and senseless stuff of Nietzsche's Zarathustra. A truly great and glorious work could he write around say, some of the Vedic Hymns [or] the Zarathustrian Gathās (the real thing & not N's piffle)* (Rapoport p. 214). Sorabji did, however, write elsewhere on the *Mass* in highly enthusiastic terms (cf. Rapoport pp 271 – 272).

406. See Cooke (1964), Cooke (1970) and Puffett (2001).

407. As with Delius' first opera *Irmelin*, a complex set of themes, some recurrent with others confined to individual movements, pervades the musical structure. For a detailed thematic analysis of the *Mass* see Caldwell (1975) pp 53 – 138 and Boyle (1982). Details of the text of the *Mass* and its sources from within Nietzsche's *Also sprach Zarathustra* are given in Puffett (1998) and Gottlob (2012).

408. Figure 7.3 lines nos 2 and 5.

409. Figure 7.3 no 7.

410. Figure 7.3 nos 6 and 8.

Section 2 A Movement 1 is based on a simple L: S GS division, 87: 54 bars, with Type I subdivisions in the longer limb.⁴¹¹ A particularly fine example of Delius' dramatic handling of GS proportioning occurs when a long roll on the kettledrum is joined by a short trumpet fanfare announcing the main GS point (bar line 88) at the start of the reprise of the opening music T1.⁴¹² In addition, the preceding long section of Movement 1 provides an arresting setting of a Nietzschean 'ascent' text: theme T2 is first introduced in D major at the words *bereit zu mir selber* and it is from this point that the text provides a succession of 'height' images culminating at '*Sonne*' in *eine Sonne selber und ein unerbittlicher Sonnen-Wille*.⁴¹³ At this point, the sopranos reach

A b and T2 enters in A b major on trombones and tuba. The whole ascent structure runs between bar lines 46 – 73 and follows a 17: 10 bar GS ascent formation.⁴¹⁴

Movement 2 the total 57 bars form a precise GS link with the following opening section of *Movement 3* (92 bars).

Section 2 B. Two further tripartite patterns are laid down both *within* section 2 B: pattern number 5 is the primary GS pattern and spans the entire 406 bars (= Movements III and IV)⁴¹⁵ whilst pattern 6 extends only through *Movement III*.⁴¹⁶ Subdivision throughout Movement III is *via* the application of alternating cycles of GS and irregular subdivision⁴¹⁷ which in addition sets up further numbers of subsidiary GS patterns. The layout of the fugal exposition (bars lines 291 – 342)⁴¹⁸ is also notable with successive entries of the paired subjects (at bar lines 291, 301, 322 and 332), forming a GS symmetrical pattern (20: 31 and 31: 20 bars). An 11- bar interlude constitutes a 'codetta' occurring between entries 2 and 3.⁴¹⁹

411. Figure 7.4 line 2.

412. Figure 7.9 example 1.

413. The text from bar lines 46 – 71 reads: *bereit zu mir selber und zu meinem verborgensten Willen: ein Bogen brünstig nach seinem Pfeil, ein Pfeil brünstig nach seinem Sterne: ein Stern bereit und reif in seinem Mittage, glühend, durchbohrt; selig vor vernichtenden Sonnen-Pfeilen: eine Sonne selber und ein un erbittlicher Sonnen-Wille zum Vernichten bereit im Siegen!* [prepared for myself alone and for my secret will: a bow yearning for its arrow, an arrow yearning for its star: a star ready and fit in its midday, glowing, pierced by annihilating sun arrows: a sun itself and an inexorable sun-will ready for annihilation in victory!]. The images of ascent here include: *Bogen* and *Pfeil*, *Stern*, *Mittag*, *Sonne* and compounds of *Sonne*: *Sonnenpfeilen* and *Sonnenwille*.

414. Figure 7.4 nos 1 and 2; Figure 7.9 examples nos 2 a and 2 b.

415. Figure 7.5 line 1.

416. Figure 7.5 line 2.

417. Figure 7.5 line 4.

418. Figure 7.5 line 3.

419. Figure 7.5 line 3; Figure 7.9 examples 3 a – 3 c.

Movement IV combines with Movement III to form pattern 5. Movement IV itself is a simple 'ascent' pattern with a 'descending' short limb (33: 21 bars). The GS point lies immediately before the word 'Herr' in 'Wer soll der Erde Herr sein?' (bar line 584).⁴²⁰

Section 2 A' (Movement 5): Movement 5, a setting of one of Nietzsche's most acclaimed lyrics, is based on a single primary L: S GS division whose GS point (bar line 682) introduces the start of the musical and textual reprise section.⁴²¹ This simple L: S design together with the opening F major tonality suggests the movement acts as a counterpart to Movement I, (also in F major) both the returning tonality and L: S design further contributing to a sense of symmetry in Part I. Superimposed on this is a second, proportionally unrelated division, 34: 55 bars, which links three successive statements of T5 the 'climactic motive' – an important motive which reappears later in the Mass (Part II /V).⁴²²

Patterns 3 and 4 (Part II)

Apart from sections 3 A' and 4 A' patterns 3 and 4 coincide.⁴²³ However, it is only section 4 A' which undergoes any further subdivision, 3 A' remaining undivided.⁴²⁴ In addition, sections 4 A' and 1 A' are identical, so that patterns 1, 3 and 4 are all interlinked.⁴²⁵ Note also that pattern 3 is enclosed in an outer frame of 67 bars.⁴²⁶

The (unnumbered) opening 67- bar F major orchestral introduction to Part II is a further instance of the use of a simple L: S GS division. Here, an initial pedal C in the cellos and double basses (later violas) is held until the GS point (42 bars), the remaining short section, (25 bars), then moving away to conclude the movement in A major, the key of the following Movement II/I.⁴²⁷

Section 3 A/4 A: Movement 1. The two outer sections X/X' are each in GS proportion with the inner Y section. The ascent text and formation of the Y section mirrors that of the opening movement of Part I, with here, (as previously), the GS point occurring immediately before the word 'Sonne'⁴²⁸ which is here sung by the soprano soloist on a high C.⁴²⁹

420. Figure 7.5 lines 3 and 5.

421. Figure 7.4 nos 4 and 5.

422. Figure 7.4 no 6 and Figure 7.10 example no 1.

423. Figure 7.3 lines 6 and 8.

424. Figure 7.6 lines 1, 2 and 6.

425. Figure 7.3 lines 5, 6 and 8.

426. Figure 7.3 line 8.

427. Figure 7.7 no 4.

428. The text between bar lines 835 – 857 is: *Ein Sommer im Höchsten mit kalten Quellen und seliger Stille: O! Kommt, meine Freunde,*

Section 3 B/4 B (Movements III and IV): Difficulties in aligning the overall mid-point of part II (bar line 1263) with the precise L: S GS point of section 3 B (pattern 3 and 4 bar line 1269 + 0.3 bars) into a design in which the GS and mid-points are coincident, may have led to the current compromise *i.e.* that the mean of these two values has been adopted (*i.e.* bar line 1266). The original intended design of pattern 3 would therefore have been a switched GS pattern (*i.e. originally* 169||305: 189||: 273 bars *currently* 169||302 + 192||: 273 bars).⁴³⁰

Difficulties may have arisen through the several large-scale changes made to the Mass during the course of composition.⁴³¹ *Movements III and IV* are each proportioned initially with a simple GS division. The S: L GS point in Movement III marks the entry of Zarathustra and is particularly finely contrasted with the previous orchestral prelude and the women's choral singing.⁴³²

Section 4 A' (Movements V and VI): In the concluding 2: 1 hierarchy, the two movements are treated as a single expanse, the hierarchy also acting as a vehicle for the final ascent formation of the Mass.⁴³³ A study carried out on the proportioning of the earlier *Mitternachtslied Zarathustras*⁴³⁴ showed that this piece had employed only a simple Type I GS subdivision,⁴³⁵ but that after the incorporation into the Mass a far more successful scheme had been devised, now with *O Mensch gib Acht!* entering at the primary 2: 1 point at the culmination of the ascent formation.⁴³⁶ As with the opening movement of the Mass, a

daß die Stille noch seliger werde! Denn dies ist unsre Höhe und unsrer Heimat; Nachbarn den Adlern, Nachbarn dem Schnee, Nachbarn der Sonne! [A summer in the highest places, with cold springs and a serene stillness: Oh! Come my friends that the stillness may grow even more silent! For these are our heights and our home; neighbours to the eagles, neighbours to the snows and neighbours to the sun!]. Images of height and ascent include here *Höchste, Höhe, Adler* and *Sonne* as well as (alpine) snows (*Schnee*) and cold springs (*kalten Quellen*).

429. Figure 7.6 no 5; Figure 7.10 example 2.

430. Figure 7.8 nos 1 and 2.

431. An unpublished orchestral *Lento con solemnity* (108 bars; British Library autograph score reference file no. 95_28_TB13_C2) was at some stage composed as an orchestral introduction to the Mass but later removed from the autograph score (Threlfall 1986 p. 36). This would have formed a tripartite GS pattern with the existing movements IV and V of Part I *viz.* 108||550||:177 bars (108: 177 = G S \pm 0.86 bars; 0.621053 = φ + 0.003019) and would also have been in GS proportion both with the 67- bar unnumbered orchestral introduction to Part II as well as with the 67- bar conclusion to the Mass *viz.* 108: 67 = GS \pm 0.16 bars; 0.617143 = φ - 0.000891). However, all possible insertions of the *Lento* with or without the two 67- bar sectors into the remaining Mass failed to show any further large-scale GS proportions, perhaps suggesting that remaining sections of the Mass may have undergone some revision after the composition of the *Lento* in order to establish the proportions of the current version of the work. Robert Threlfall writes regarding Delius' changes to the autograph score of the Mass: *Pages 1 – 9 are a rejected orchestral introduction, Lento con solennità, now separated [. . .] the opening chorus starts on p.11. The prelude to part 2, presumably a later addition, is on a separately inserted sheet; part 2 (Tanzlied) was completed earlier and had its own title page* (Threlfall *ibid.* p. 36).

432. Figure 7.8 nos 3 and 4.

433. Figure 7.6 no 7.

434. Autograph score: *Mitternachtslied Zarathustras* British Library reference file no. 95_28_14.

435. Figure 7.7.

436. Figure 7.6 no 7; Figure 7.10 example 3.

tripartite GS pattern overlies the series of simple subdivisions carried out on the primary division of the movement.⁴³⁷

Distinguishing features of the score include the relative paring down of the range and density of GS proportioning strategies compared with some larger pre-1900 works. The Mass lacks, for example, any opportunity for the integration of text and proportion comparable with the interaction of the golden section with the alchemical symbolism of *Irmelin*. Emphasis is placed therefore, more on an immediate rhetorical approach, especially on the use of a simple GS division whose two limbs are sharply contrasted and/or whose GS point is strongly marked.

A progressive feature of the Mass is that different types of ascent structure are now becoming more apparent and more clearly differentiated than hitherto. Thus, for example, although there is only one example of an 'ascent-descent' formation (Part I Movement 4), there now occurs in several movements, either *a continuation of the ascent upwards* or a *levelling off* following the GS or 2: 1 point.

Deryck Cooke has described the overall shape of the Mass as a 'double arch'⁴³⁸ and, in the case of Part I, an arch construction is particularly clear, as both the entire Movement III and its dynamic central fugal section are precisely centred both in relation to each other and to the remaining movements of Part I. The description 'arch form' as applied to Part II may prove more contentious, with the quieter central movements being enclosed by the outer more dynamic and brilliant ones, the central movements themselves being in an asymmetric relation with each other. Part II might therefore be better designated as an 'inverted arch.' However, in the case of both Parts I and II, a complex of superimposed symmetrical and asymmetrical patterns should be recognized as comprising the overall structural form of the Mass.

Fennimore & Gerda (c. 1908 – 1910) Within the context of Delius' six completed operas, only the first and last, the two 'Scandinavian' operas *Irmelin* (1890 – 1892) and *Fennimore and Gerda* (c. 1908 – 1910)⁴³⁹ make any extensive use of GS proportioning: both operas concentrate for

437. cf. Figure 7.4 no 3 with Figure 7.6 no 8.

438. Cooke 1964.

439. The libretto of *Fennimore and Gerda* is based on the novel *Niels Lyhne* (1880) by the Danish scientist and writer Jens Peter Jacobsen (1847 – 1885). Delius adapted chapters 10, 11 and 13 of the novel, writing the text in German rather than in the original

the most part on the Golden Section, and both lead to 2: 1 proportioning in their final (affirmative) stages.

Overall Proportioning in bars: The overall proportioning of *Fennimore and Gerda* follows (for Delius) a rare procedure: instead of any primary division by GS, 2: 1 or bisection, the opera divides initially, (at the juncture of scenes V and VI), into two sectors of 631 and 761 bars which bear no simple proportional relationship to one other.^{440,441} Each sector then divides by GS (respectively at the junctures of scenes II and III and IX and X) into four limbs 241: 390 and 470: 291 bars.⁴⁴² Formation of a number of primary patterns then proceeds by marking off GS complements either at the 'beginning' or at the 'end' of the opera, for example 241: 392, 291: 469, 392: 631 and 469: 761.⁴⁴³ This technique also leads to several different sectors within the Opera each spanning the equivalent number of bars,⁴⁴⁴ so that a number of additional patterns are possible (for instance between Scenes V –VI and IX –XI, 242: 291 bars).

Proportioning within individual scenes and grouped scenes: Proportioning within individual and grouped scenes is carried out at the *crotchet level*,⁴⁴⁵ so that the hierarchy shows a downwards transition from proportioning in bars to crotchets. For Scenes I – IX, (which cover Niels Lyhne's unhappy love affair with Fennimore) proportioning is applied within each of three groups of three scenes each (I – III, IV – VI and VII – IX), whilst for the final two scenes (X and XI, which relate the happier episode of Niels and his future wife Gerda) proportioning spans both scenes in a 2; 1/GS hierarchy.⁴⁴⁶ The separation of Scenes X and XI in this manner supports Threlfall's view ⁴⁴⁷ that they were added at a later date, and reflected Delius' dissatisfaction in concluding the opera on a sombre note with Scene IX.

Conspicuous features of Delius' technique in *Fennimore and Gerda* include the almost complete absence of any extended Type I GS proportioning, and the consequent development of an underlying 'texture' arising solely from the presence of overlapping Type II patterns. Also absent is the use of Type II extended hierarchies (containing more than two

Danish.

440. Figure 7.11 line 1.

441. From about 1887 Claude Debussy had used a similar technique to this. See chapter 10, where the technique is referred to as *GS partitioning*.

442. Figure 7.11 line 2.

443. Figure 7.11 see lines 3, 4, 5 and 6.

444. for example: 390 (line 2), 390 (line 4) and 392 (line 3)

445. Compound times in the score are all based on the dotted minim (η.) 6/4, 9/4, 12/4 etc. which must be counted respectively as 6, 9 or 12 crotchet beats etc. Compound times based on dotted crotchets, dotted quavers etc. do not occur.

446. Figure 7.12 nos 1 – 4. Figure 7.13 shows the events and proportioning in scenes I to VI in closer detail.

447. See Threlfall 1979 pp 5 – 7.

members), so that the presence of any superimposed GS 'patterns within patterns' is avoided. A further important restriction is the relative paucity of GS 'ascent' structures and climactic points and their use as dramatic support to the text.⁴⁴⁸ These limitations lead instead to an unusually prolific development of GS patterns which in turn forms a web of GS correspondences shaping the musical material.⁴⁴⁹ A similar approach was earlier attempted in *Paa Vidderne* especially in the overall design spanning all nine movements,⁴⁵⁰ and also continued in some individual movements.⁴⁵¹ That this effect is consciously achieved can be seen by comparison with *The Magic Fountain*, an opera largely proportioned by 2: 1 division, and where the 'underlying texture' consists not of GS patterns, but of 2: 1 patterns.⁴⁵²

The Song of the High Hills (1911)

The Song of the High Hills belongs with a small group of mature works in which a sense of what might be termed the 'transcendent' 'numinous' or 'noetic' is symbolised by a transition from Golden Section to 2: 1 proportioning. Thus, in *The Song of the High Hills*, this sense of the supranormal is conveyed by an 'ascent' from GS to 2:1 within the hierarchical structuring of the music. In addition, but in a 'horizontal' direction, the music itself proceeds to some extent from GS towards a closure in 2: 1 proportion.⁴⁵³

The overall form of the work arises from two superimposed configurations: a tripartite GS pattern which spans the entire work, and a hierarchy or set of GS divisions with the common GS point at the γ - climax (bar line 156). The work has been proportioned both at bar and at crotchet levels, the two levels acting sometimes synergistically, sometimes independently of one another.⁴⁵⁴

The tripartite GS Pattern. The two outer sections (A and A') of the pattern, are in GS proportion, but the initial subdivision *in bars* of each section (A, B and A') of the pattern is in precise 2: 1.⁴⁵⁵ Continuing at the *bar* level, the subdivision of the B section into theme and

448. These are largely limited to scene VII – see Figure 7.12 no 3.

449. See Figures 7.12 and 7.13. For reasons of clarity and space, not all patterns located have been indicated.

450. See Chapter 2 Figure 2.9.1.

451. See Chapter 2 Figure 2.9.2 no 3 b and Figure 2.9.4 no 4.

452. See Chapter 5 Figure 5.3 no 5.

453. The opening A section, however, is unusual in its exclusive use of 2: 1 proportioning. See note 57 below.

454. Figure 7.14.

455. Note for example, the exact positioning by a 2: 1 hierarchy within A of T1, T2 and T3 and of the α and β T4 climaxes (see Figure 7.14 no 3 and music examples Figure 7.16).

variations (according to Grimes' analysis)⁴⁵⁶ falls readily into GS divisions or patterns.⁴⁵⁷

Proportions added at the *crotchet level* include the closing 2: 1 division between the 'recapitulation' and the 'coda', as well as a second subdivision of the B section, B''' and B'''' with GS points at the junctures of the 57 and 37 and 24 and 41 bar sectors.⁴⁵⁸

The GS Hierarchy. This co-ordinates the positions within *The Song of the High Hills* of its four main climaxes, linking them with each other as well with some remaining significant junctures within the overall design. Two of these climaxes, both in terms of their position and nature, seem particularly auspicious: The β - climax ⁴⁵⁹ effects a magical change in the music, introducing horns and woodwind calls which presage the 'mountain heights' of the B section shortly to follow.⁴⁶⁰ Daniel Grimley has recently characterized the visionary nature of this climax as follows:

. . . and the music begins to wind up with growing chromatic tension and a sense of physical strain or exertion. – and there's a sudden break through and the clouds part and we hear this repeated horn figure. . . a Norwegian herding call or kulok,⁴⁶¹ and we are in a completely different place ⁴⁶²

Similarly, the γ - climax,⁴⁶³ with a further series of horn calls, heralds the start of the section marked *The wide far distance*.⁴⁶⁴ This latter climax stands at a critical point in the overall design, acting as the source and origin of the hierarchy by which the other climaxes are placed.

The B section as Golden Section Point: Sir Thomas Beecham⁴⁶⁵ has eloquently described, in programmatic terms, the tripartite nature of the work:

The ascent and descent⁴⁶⁶ from the High Hills is cunningly depicted in music of a totally different character from that which greets us when the summit has been

456. Grimes (1966) pp 234 – 250.

457. Figure 7.14 nos 3 and 4.

458. Figure 7.15 line no 2.

459. See Figures 7.14 and 7.15 and music example Figure 7.16 no T4.

460. See Figures 7.14 and 7.15 and music example Figure 7.17 no T5.

461. Andrew Boyle (1982) has outlined the origins and development of the various 'mountain calls' in Delius' music, which occur initially in some of his earliest pieces, e.g. the song *Over the Mountains High* (Bjornson) of 1885.

462. Daniel Grimley, lecturer in music, Oxford University. The quotation is taken from the BBC documentary *Delius: Composer, Lover, Enigma* directed by John Bridcut and first broadcast by the BBC on 25 May 2012.

463. See Figures 7.14 and 7.15 and music example Figure 7.17 no T 6.

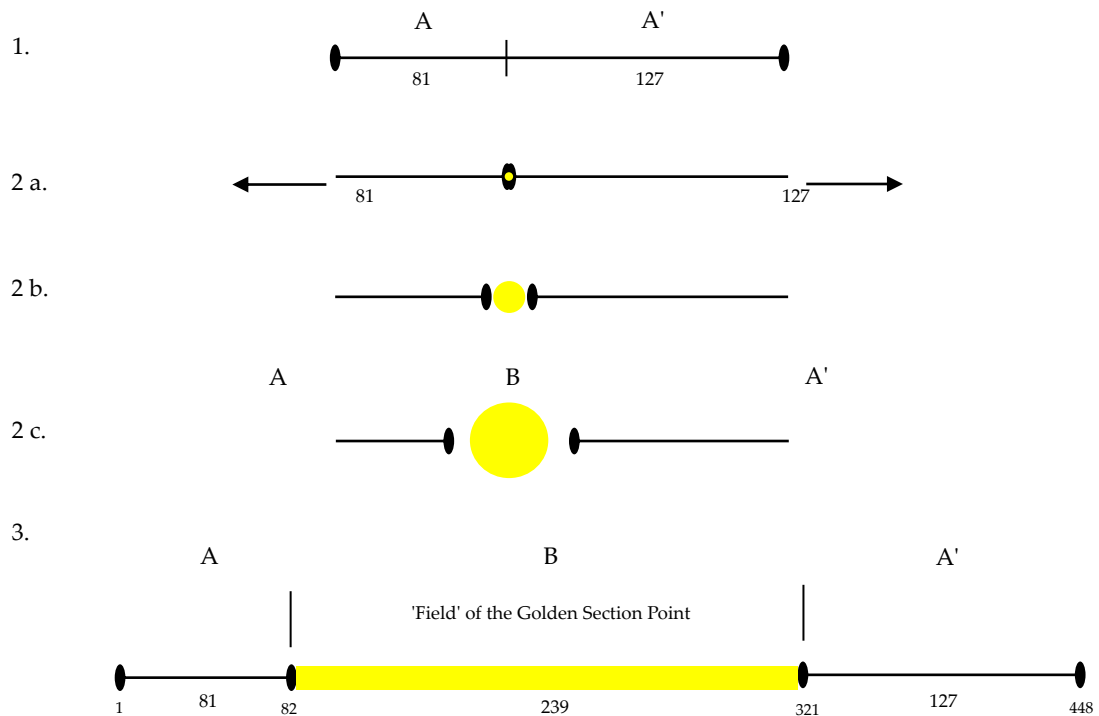
464. The opening theme of *The wide far distance* is shown in music example Figure 7.17 no T7.

465. Beecham p.168.

466. cf. the A and A' sections of Figure 7.14 line no 2.

attained,⁴⁶⁷ where we have a magical sequence of sounds and echoes, both vocal and instrumental

When contrasted with more strenuous outer sections of *The Song of the High Hills*, both the depiction of an encounter with a transfiguring mountain-scape, as also the more contemplative qualities of the central section, prompt some speculation on the nature, function and position of the main GS point in Delius' large-scale tripartite GS structures.



If the above central (B) section were excluded for a moment, the work would reduce to a simple GS division, the GS point leading immediately to a reprise of the opening section, (the first beat after the GS point) signalling the start of the long section. The GS point itself is thus located 'at' or 'inside' the bar line, and consequently may normally be represented by the bar line itself (text Figure above: line 1)

In the same text Figure – lines 2 a to 2 c, the bar line indicating the position of the GS point is imagined as being 'spliced vertically' by a gradually expanding GS point represented by a golden disc. In line 3 the expanding point, now represented by a golden bar, has established its own 'field' in which the direct progress of the music from the A to the A' section has been interrupted. The music of the B section is, as it were, 'contained' within the GS point, where the 'sense of time' of the outer sections has been suspended or no longer operates.⁴⁶⁸ With the end of the B section, the music emerges from a kind of 'stasis' resuming a 'normality' so that

467. cf. the B section of Figure 7.14 lines 2, 3 and 4.

468. This 'field' established by the GS point, extends its influence however to the outer A and A' sections, as for example in the inter-linkages established by the GS hierarchy.

the 'significant event' immediately following GS point (*i.e.* the start of the recapitulation) now ensues. This concept of the GS point would apply to several other of Delius' larger pieces including, for example, *Appalachia* (c. 1902) which also contains a theme and variations 'confined' within a similarly 'expanded' GS point, and whose music contrasts sharply with the outer A and A' sections.⁴⁶⁹ In *Appalachia*, the 'significant event' immediately following the GS point is the dramatic entry of the baritone soloist who sings *O Honey I am going down the river in the morning* – the song of a slave who, at daybreak, is to be shipped away from his lover, down the Mississippi.

Eventyr (1917)

Within the context of Delius' mature output, the orchestral work *Eventyr*⁴⁷⁰ stands as a unique experiment in the use of GS for dramatic effect, the progress of the often violent and aggressive music being frequently halted or curbed by a series of GS or other points, which themselves may be conspicuously and variously highlighted. As with several previous works, large-scale cohesion and form in *Eventyr* is secured by the use of subsuming 'patterns', and although the overall format might first be seen to correspond *only* to a CGSP (79||94: 59||: 50 bars), an alternative format, that of a *GS tripartite pattern* (79|153|: 50 bars) offers a far more plausible solution to any analysis of the central 153 bars of the work.

The Primary GS Division. The S: L GS point falls at bar line 109, at the β climax, and the L: S point at bar line 174 marked by a brief (2 bar) climax.⁴⁷¹

The CGSP. The two outer sections A and A' are also musically matched (X and X') the two lyrical themes in A/X,⁴⁷² following a near total absence in the B/Y section,⁴⁷³ both return in A'/X'. The re-statement of the first of these, at bar line 233, marks the beginning of the A'/X' section. As above, the B/B' section, has its GS point at bar line 174:⁴⁷⁴ however, the wide dynamic range and the complex design of the 153-bar 'B' section of the tripartite pattern (below) largely obscures any impact of the GS point at bar line 174 of the CGSP,⁴⁷⁵ so that it is

469. The relevant GS tripartite pattern for *Appalachia* is 99||492||: 62 bars, the theme with variations being confined to the 492-bar B section.

470. The full title of the work given in the manuscript is: '*Eventyr/ Once Upon a Time/ after Asbjørnsen's Folklore/Ballad for Orchestra/*'. (Threlfall 1977 p. 152). *Eventyr* in Norwegian can be translated as 'fairy-tale' or 'adventure' and alludes to Asbjørnsen and Moe (1841) *Norske Folkeeventyr* [Norwegian Folk Tales].

471. Figure 7.18 line 2, Figure 7.19 examples 6 and 9.

472. Figure 7.19 examples 2 and 4.

473. Part of musical example 4 (Fig 7.19) makes a brief appearance near the beginning of the B/Y section (*cf.* bars 88–91).

474. Figure 7.19 example 9.

475. Figure 7.18: compare lines 2 a with 2 b and 2 c.

relatively unobtrusive in its effect. The intercession of the A/X and B/Y sections occurs at the α climax (bar line 80).⁴⁷⁶

The Tripartite Pattern. The A and A' sections are the same as in the CGSP above. The B section achieves its dynamic effect through the development of several short themes,⁴⁷⁷ whose course is directed and underpinned by extended GS proportioning using Lucas Type I subdivision. Initially the B section is bisected at the γ climax⁴⁷⁸ into two sectors (77 and 76 bars), with each of these being subdivided at their respective primary GS points, the overall scheme being as follows:

77 bar sector: 1st end point at the α climax, 2nd end point at the γ climax; the S: L point at the β climax, and the L: S point at the entry of the Figure 7.19 example 1 theme on the (sarrusophone, bassoons and lower strings), which leads to the mid-point climax γ .⁴⁷⁹

76 bar sector: 1st end point at the γ climax, 2nd end point at the juncture of sections B/Y and A'/X' (at the re-introduction of Figure 7.19, example 2), the S: L point (bar line 186) at a resurgence of example 3⁴⁸⁰ at *becoming gradually more and more agitated* and the L: S point marking the beginning of the striking *Maestoso* passage at bar line 204⁴⁸¹. The section running between bar lines 186 to 233 offers a particularly fine and transparent example of Delius' use of the Lucas series, with the proportioning into bar groups of 4, 7, 11 *etc.* often being recognizable directly from their configurations in the score.

The midpoint of section B receives further focus by the introduction at bar line 151 of a new triplet motif in the strings⁴⁸² which accumulates a high level of musical energy that is temporarily quelled at the midpoint bar line 157. The motive resumes at bar line 160, its progress permanently halted at 169. The intervening bars 157–159, include the first of two 'shouts' and which marks the entry into the second (76-bar) sector.⁴⁸³

476. A second CGSP of 20||88: 140||: 34 bars, constructed around the β climax, is also possible. The subdivision by GS of the 140-bar sector of this pattern lends some support as to its validity. This second pattern shares several divisions and subdivisions with the first.

477. Figure 7.19 examples 1, 3 and 5.

478. Figure 7.18 bar line 157, Figure 7.19 example 8.

479. Figure 7.18. lines 2b and 2c.

480. Figure 7.19.

481. Figure 7.18 lines 2b and 2c and Figure 7.19, example 10.

482. Figure 7.19 example 7.

483. Figure 7.19 example 8.

A further point concerning the use of GS in this work is the lack of any completed GS 'ascent-descent' formation. Thus, there are no passages of gradually declining musical dynamic which are in GS complement with a preceding phase of a corresponding increasing dynamic. Several ascent-descent phases have one limb considerably curtailed in respect of the other, an effect contributing to the restless or turbulent nature of the music.⁴⁸⁴

Although Delius offered no programmatic note for *Eventyr* there is a perhaps a general sense in the piece of a succession of waves of assault or attack being launched by mischievous or malevolent entities, and each of these in turn being repelled or thwarted. Iliffe has traced here the probable influence on Delius of the tale *Enkesønnen* (The Widow's Son) in Asbjørnsen, P. C., & Moe and which relates the flight of a son and his magic horse and their pursuit by a troll 'and his pack' . . . [where] 'the pursuit is delayed by magic means, but catches up again and has to be baulked twice more before the troll and his gang are finally destroyed'⁴⁸⁵

Cello Concerto (1920 – 1921)

According to Delius' wife, Jelka, the Cello Concerto was 'sketched out' at Grez-sur-Loing in March 1920 and completed in the Spring of 1921 in London.⁴⁸⁶ The work is cast as a single movement comprising four sections: I a and I b – in sonata form,⁴⁸⁷ but with a slow section, II,⁴⁸⁸ being interposed between I a (introduction, exposition and development) and I b (recapitulation), III – a largely lyrical section which opens with a prolonged theme from the soloist marked *Allegramente*.⁴⁸⁹ IV a coda-like final section beginning with a second expansive solo theme marked *Più lento molto tranquillo*.⁴⁹⁰ The proportioning of the Concerto occurs in three successive stages:

484. Figure 7.18 line 1 – cf the ascending and descending dotted arrows

485. See Barry Iliffe in Carley (1998) p. 285.

486. Letter of Jelka Delius to Norman O'Neill of 30 March 1923 cited by Threlfall (1977) p.170.

487. The first and second subjects are designated respectively T₁ and T₂ in the accompanying Figures 7.20 and 7.21 and music examples Figure 7.22.

488. Figures *ibid.* and music examples T₃ to T₇.

489. Figures 7.20, 7.21 no 3. and music example T₈ T₉ and T₁₀ also follow in section III (Figure 7.23).

490. Figures 7.20, 7.21 no 3 and music example T₁₁ Figure 7.23).

a GS division as the B section: 15||33: 55||15. Delius has taken an unusual step however in that this pattern becomes 'interrupted' or fragmented by the interpolation of the slow section II.

Figure 7.21 line 2 shows pattern formation spanning from the end of I a, through II (now placed *in situ*) and to the end of I b. It shows an outer framing of 16: 26 bars, enclosing another 1: 1 pattern with a symmetrical GS pattern as the B section.

Figure 7.21 line 3 illustrates pattern formation extending from I b to the end of the work. It consists of a double-framed switched GS pattern: 26||19||25: 15||:29||40 bars.

The question might be asked how has Delius been able to create this third layer of complex patterns and still maintain high levels of GS precision – surely, he would be severely restricted in his ability to design these due to the presence of and 'interference' from the two pre-existing layers of GS proportioning? The assumption may also have been made that this third layer of patterns was configured from events laid down *only in the first and second stages of proportioning*. Reference to Table 7.1 (in-text) shows that, in fact, Delius has created *three* separate groups of 'events' along the axis illustrated in Figure 7.20 line 2. The first group (initiated by the cycle of subdivision and redistribution) establishes the dividers or delimiters partitioning the individual sections of the Concerto (at bar lines 1, 24, 93, 205 *etc.*). The second group, (originating from the end points and limb subdivisions of the GS hierarchy) lays down individual musical events (excluding delimiters) along the axis (at bar lines 41, 114, 158 *etc.*). The third group signals some 'new' (interpolated) musical events (bar lines 16, 49, 128 *etc.*). This third group has been introduced *to create patterns with those events previously created*. A few examples will help elucidate this third stage of pattern creation:

Figure 7.21 line 1. The bar lines defining the 15||33: 55||15 pattern referred to above are numbers 1, 16, 49, "104" (actual 216) and "119" (actual 231). Of these, bar lines 1 and 119/231 derive from the *cycle of subdivision and re-distribution*, whilst none arise from the *GS hierarchy*. This means that all three remaining points (underlined) must have been added and/or their positions "*fixed*" during this third stage.⁴⁹⁵

Figure 7.21 line 2. The bar lines defining the inner 1: 1 pattern 21||27: 44/44: 27||20 pattern referred to above are 93, 114, 141, 158, 185 and 205. Bar lines 93 and 205 derive from the above first group, 114 and 158 from the second, and bar lines 141 and 185 (underlined) from

495. Note also that bar lines 16, 49 and "104"/216 each mark a juncture between subsections: bar line 16 at the *Con moto tranquillo* and change of time signature in the introduction of I a, bar line 49 at the juncture between exposition and development of I a and bar line "104"/216 the juncture between T1 and T2 in the recapitulation (I b).

the third. Bar line 141 introduces the horn theme T_6 at the 27: 44 GS point of the pattern, and bar line 185 the presents combined themes $T_4 + T_8$ marking the start of the 20-bar component of the 21: 20 bar frame.

Figure 7.21 line 3. The bar lines defining the inner switched GSCP pattern 19||25: 15||: 29 are 231, 250, 275, 290 and 319. Only bar line 250 has been added in the third group. This is the conspicuous passage T_8 based on a descending whole-tone scale. It marks out the juncture 19||25 of the pattern.⁴⁹⁶

Concluding transition from GS to 2: 1 proportioning. The Concerto lacks any clear transition from GS to 2: 1 proportioning in its later stages. Possibly however the two-member mixed hierarchy with its upper member 44: 84 bars is intended as an approximate 2: 1 reference.⁴⁹⁷

496. In finalizing these third-group patterns, Delius would also have had some additional recourse to making any fine-tuning adjustments needed by *changing the position of end points within the second-stage hierarchy*. Thus, for example in Figure 7.21 line 2 the position of entry T_4 might have been adjusted to its current position (bar line 114) by the lengthening or shortening of member three of the hierarchy to its current length (Figure 7.20 line no 3.). However, this move would have also entailed a re-adjustment of the remaining events associated with member three to their current positions *viz.* at bar lines 41, 158, 275 and 348. It seems likely that Delius' method of fine-scale proportioning would have involved a lengthy re-iterative process of adjustment and re-adjustment, a process which at the same time would necessarily have switched between the different stages or layers of his proportioning procedures.

497. See Figure 7.21 line 3.

Event at Bar Line	Stage 1: Subdivision/Redistribution	Stage 2: Hierarchy	Stage 3: Subsequent
1	+	-	-
16	-	-	+
24	+	-	-
41	-	+	-
49	-	-	+
77	-	+	-
89	-	+	-
93	+	-	-
114	-	+	-
128	-	-	+
141	-	-	+
158	-	+	-
172	-	+	-
185	-	-	+
205	+	-	-
216	-	-	+
231	+	-	-
250	-	-	+
275	-	+	-
290	+	-	-
319	-	+	-
348	-	+	-
359	+	-	-

Text Table 7.1 *Cello Concerto* (1920 – 1921) : *Events contributed by each of three stages of proportioning of the Concerto:* Stage 1 delineates the limits of the four different sub-sections of the Concerto. Stage 2 contributes to the positioning of thematic entries, climaxes *etc* and to pattern formation. Stage 3 adds some additional music events and participates in creating a further system of patterns. For additional information *see* the accompanying text and Figures 7.20 – 7.23.

During 1921 Delius 'gradually lost function in his hands' and faced 'increasing pain and weakness in his legs' the 'decline continuing into January 1922'.⁴⁹⁸ In that latter year Delius also began to lose his vision. However, the deterioration fluctuated and was spasmodic, so that in mid-1924 he was still able to read to some degree and in December 1924 penned a letter (his last in his own hand) to his friend Henry Clews.⁴⁹⁹ Although not fully assessed as yet, the role of Jelka Delius as amanuensis to her husband during this time must have been considerable. Apart from handling all his correspondence, she set down for him such works as the *Violin Sonata No 2*, the two short sets of piano pieces, the unaccompanied chorus *The*

498. Quoted from Lederman 2015 p. 224.

499. Lederman *ibid.*

Splendour Falls and the orchestral song *A late Lark*.⁵⁰⁰ By 1925 however, all Delius' compositional activity had ceased. It was not resumed until the arrival of Eric Fenby at Grez-sur-Loing in October 1928.⁵⁰¹

Five Piano Pieces 1922 – 1923⁵⁰²

These five pieces were “painfully dictated” by Delius' to his wife Jelka, and counted as her “début as amanuensis” to her husband.⁵⁰³ Despite such difficulties, the pieces together form a perfect CGSP – (Complete Golden Section Pattern), the A' section in turn being subdivided by GS into the *Lullaby* (no IV) and *Toccata* (no V) – 24: 39 bars. There are no further GS subdivisions made within individual movements.⁵⁰⁴

Three Preludes (Piano) 1923⁵⁰⁵

Both the drafts and engraver's copy of the *Three Preludes* are in the hand of Jelka Delius.⁵⁰⁶ Like the *Five Piano Pieces* the *Three Preludes* encapsulate in miniature some of the main elements of Delius' proportioning praxis.

At *crotchet level* the *total crotchets* undergo an initial GS subdivision followed by an irregular subdivision and a redistribution of the larger GS product (*i.e.* 263 q's $\times \varphi \approx 161$ and 102 q's; $161 = 75 + 86$ q's).⁵⁰⁷

At *bar level* a primary1: 1 pattern and a primary switched CGSP are superimposed on one another, whilst within the B section of the CGSP a second CGSP (unswitched) is constructed. The climax in bar 25 is also incorporated into the scheme.⁵⁰⁸

*Songs of Farewell*⁵⁰⁹

Overall design

500. Neither *The Splendour Falls on Castle Walls* (1923) nor *A Lake Lark* (1924) show signs of any proportional strategy.

501. Much of Fenby's work covered the completion of earlier works, there being no entirely new piece composed during his time as Delius' amanuensis. Only the *Caprice and Elegy* and *The Songs of Farewell* have been commented on here, therefore.

502. Delius, Frederick (1988) *Complete Works – Volume 33: Works for Piano Solo*. London: Boosey & Hawkes.

503. Delius *ibid.* see *Preface*.

504. See Figure 7.24 nos 1 to 3.

505. Delius *ibid.* *Complete Works – Volume 33: Works for Piano Solo*.

506. Threlfall 1977 p.193. The engraver's copy (*Stichvorlage*) is apparently now lost.

507. For compound time signatures let q. = q

508. See Figure 7.24 nos 4 – 7.

509. Frederick Delius: *Complete Works – Volume 13a Songs of Farewell..*

The overall design in this work reveals the presence of a detailed hierarchical structure. The uppermost levels of the hierarchy consist of a series of 2: 1 divisions, the primary division marking the juncture of songs III and IV, with subsequent subdivisions delineating the 2: 1 proportions among the individual movements.⁵¹⁰ The 2: 1 hierarchy extends downwards into the internal proportioning of Movement II (see below). This hierarchy casts the work into an overall 1: 1 pattern A || B: B' || A' of

59 || 98: 50 || :57 bars, the 'B' section dividing 2: 1 at the γ climax in Movement III.⁵¹¹

The work is notable also for the series of ascent structures, that of movement III being identified with an 'ascent of the Soul' described in the text of the movement.⁵¹² As in earlier works, the climactic points of these ascent structures are variously linked in a network of GS divisions which is partly independent of, and superimposed upon, the hierarchical formation described above.⁵¹³

A further feature includes the prevalence of references to the Lucas series (both as number and proportion) in movements II – V of the work.

Individual movements

Movement I. The format follows a switched CGSP A || B': B || : A' but with the corresponding musical pattern (which follows the deployment of the two texts), being in an X | X' | Y format, (rather than the more frequent sequence X | Y | X'). Subdivision by GS of the A and B sections is at the introduction of the horn call postludes following the choral entries.⁵¹⁴ The A' section of the CGSP is a setting of the second text in a 17: 10 bar GS ascent formation, the placing of successive lines of the text following a 3, 7, 10, 17, 27 summation series.⁵¹⁵

Movement II. The 2: 1 hierarchy continues downwards into this movement but is evident only in crotchet reduction.⁵¹⁶ The 2: 1 proportioning leads to the forming of a tripartite pattern A | B | A', 88 | 120 | 58 crotchets (the parallel musical pattern equalling X | Y | X') with the A' X' section being a reprise of the instrumental opening AX.⁵¹⁷ The 2: 1 proportioning

510. See Figure 7.25 line 2.

511. See Figure 7.25 line 3.

512. The poems set in *Songs of Farewell* are all taken from Whitman's *Leaves of Grass*: Movement I: texts I and II are both from *Sands at Seventy* (Whitman *et al* 1980 p. 703 and p. 701) Movement II: also from *Sands at Seventy*: (*ibid.* p. 696) Movement III: from *Passage to India* § 9 (*ibid.* p. 573) Movement IV: *Joy, Shipmate, Joy!* (*ibid.* p. 611) V: *Now Finalè to the Shore* (*ibid.* p. 608).

513. See Figure 7.25 line 4.

514. See Figure 7.26 lines 1 and 3 and Figure 7.29, music example 1.

515. See Figure 7.26 lines 1, 2 and 4).

516. The total 39 bars of Movt II = 266 crotchet beats – Figure 7.27 line 2.

517. See Figure 7.27 line 3.

conceals however a reference to the value 29, member 7 in the Lucas summation (1, 3, 4, 7, 11, 18, 29, 47 *etc.*) the values in the pattern 88|120|58 each being approximate multiples of 29: respectively $\times 3$, $\times 4$, and $\times 2$.

An ascent formation is constructed on the B and A' sectors of the pattern with the climactic point β following crotchet beat 418. Although probably intended as a GS L: S proportion, the climax falls two crotchets too early for a precise GS value to be achieved.

An additional pattern is also implied from the above proportioning *viz.*: 88|108: 70|58 *i.e.* in this new pattern the A' section is 'superimposed' on the B'' section.⁵¹⁸ A similar idea is pursued in movement III (below).

Further allusions to the Lucas series are made in the instrumental introduction and postlude to the movement: The opening cello passage extends for 29 beats (28 crotchets + 1 rest) before being repeated. Also, this same passage may possibly be subdivided after 11 beats.⁵¹⁹ The theme on horns at bar line 69 extends for 18 crotchet beats, whilst that on the oboes at bar line 71 lasts for seven beats.⁵²⁰ In addition, the opening 29 crotchet beats of the movement are in GS complement to the closing 18 beats (bars 96–98).

Proportioning in bars: taking the 39 bars of the movement together, the middle choral section begins after 11 bars, and the climactic point β falls after 29 bars. The intervening 18 bars then divide 11: 7 at line 3 of the text (bar line 82). Values following the climactic point also fall into Lucas numbers.⁵²¹

Movement III. The instrumental prelude, $12 \times 3/2$ bars, should be counted as 24 bars of $3/4$ time. This establishes a primary GS division of 35: 56 bars with the GS point at bar line 123 (at the juncture where music example 6 takes over from example 5).⁵²² A GS ascent configuration of 35: 21 bars is then formed from the 56-bar limb with the GS point at the γ climactic point at bar line 158.⁵²³ As with Movement II, two possible patterns are suggested: a tripartite GS pattern of 11 || 38 || :18 bars the A and A' sections being musically matched,⁵²⁴ and a switched CGSP 11 || 35: 21 || : 18 bars with the same outer matched A sections as the previous pattern, but with the A' and B' sections now being superimposed.⁵²⁵ This latter

518. See Figure 7.27 line 5.

519. See Figure 7.30 example 2.

520. See Figure 7.30 examples 3 and 4.

521. *i.e.* 7 bars (1 + 1 + 5) and 3 bars – see Figure 7.27 line 1.

522. See Figure 7.30 examples 5 and 6; see also Figure 7.28 line 2.

523. See Figure 7.28 line 3.

524. See Figure 7.30, example 5 and Figure 7.28 line 4 a

525. See Figure 7.28 line 4 b.

repeats the idea of the previous movement, but here more precise GS proportions are attained.

Movement IV: This short march-like movement is largely cumulative in effect: the climax, placed towards the end of the movement, initially begins from bar line 201, but is carried through to the last beat of the final bar (207). Subdivision of the 29 bars follows the examples of Movement I (poetic text 2), and III (when proportioned in bars) and like III, follows the Lucas series *viz.* line 3 of the text begins after 4 bars, line 4 after 7 bars, the horn and trombone fanfares accompanying the text at *she leaps! she leaps!* occur after 18 bars, and the movement concludes after 29 bars.

Movement V. The 22-bar instrumental postlude of movement V⁵²⁶ and the opening 36-bar choral section immediately suggest a primary GS division in bars based on the double Lucas series $2(1, 3, 4, 7, 11, 18, 29) = 2, 6, 8, 14, 22, 36, 58 \text{ etc.}$). Similarly, the mixture of 3/4, 5/4 and 6/4 bars in the 30 bars before the ϵ climax (in bar 238) imply that the position of the climax within the movement is being adjusted within a crotchet beat axis. However, from several indications it appears probable that a bar may have inadvertently been excluded from the movement at some stage of composition, affecting slightly the overall proportions of the entire work, as well as those within movement V itself. This omission would have been at the conjunction of the choral section and the closing instrumental prelude. Thus, for example, moving the entire *Lento molto* section forward one bar (currently starting from bar line 243) would improve several discrepancies.⁵²⁷ This alteration would entail the composition of one bar of music in the strings and woodwind, (which should be in continuation of the previous bars), to fill bar 243 now left empty.

Records regarding the history of the composition of *Songs of Farewell* offer two divergent accounts as to the date of original composition of this work, one source indicating that the 'work was entirely sketched out in 1920 or 21, when he [Delius] put it aside to do the Hassan music'⁵²⁸ whilst a second implies that the *Songs of Farewell* were *ab origine* composed under dictation *c.* 1929 – 30 at a time when Delius had become totally blind.⁵²⁹ The current analysis

526. See in Figure 7.30 music example 7.

527. See Figure 7.29.

528. from a letter of Jelka Delius to Ernest Newman dated 28 October 1930 and quoted in Threlfall 1977 p. 71.

529. See Fenby, E., & Lloyd, S. (1996) pp 187 – 188. For Eric Fenby's account of Delius' dictation of Movement II see Fenby (1981) *How he Worked* pp 147 – 157. The disparity between this latter account and the intricacy of Delius' proportioning in Movement II and elsewhere as well as the integrated design of the complete work, suggest that Delius, with the assistance of his wife, may have been constantly referring to the earlier written version of the work at the time he was dictating to Eric Fenby.

would strongly support the former view, *viz.* that the *Songs of Farewell* had been largely planned and completely worked out at a time before Delius had lost his sight. However, possibly Movement IV could have been fully dictated at the later stage, and the 'error' in the proportioning of Movement V mentioned above could also have arisen at a late stage.

* * * * *

Chapter 8: Some Observations on the Role of Proportion in Delius with Notes on the Main Stages of Proportional Analysis

The present chapter will focus on some of the more essential principles identified and proposed as governing Delius' proportioning praxis. Emphasis will be laid on the role of large scale proportioning in Delius works, as well as the part proportion does (or doesn't) play at more local levels. Some potential misunderstandings regarding the topic of proportion in Delius are also addressed. The chapter concludes with some suggestions on an approach to carrying out proportional analysis on Delius' music.

The Basic Role of Proportion in Delius.

In his analysis of Delius' *Violin Concerto* ⁵³⁰ Deryck Cooke wrote:

. . . the work was written with a strong feeling for rightness in the proportions, since the balance of the various movements and sections, in the matter of numbers of bars, cannot be faulted.⁵³¹

Cooke doesn't comment on how he came to this conclusion (whether mathematically or intuitively) but does, however, inadvertently refer to the most significant feature of Delius' proportioning mentioned at the start of this thesis:

Regarding 'Delius and form' this study will limit itself to questions of *proportion* and *proportioning* in Delius' compositions: that is, the proportion of an *individual section or part* of a work or movement as *related to the whole*, as well as proportional inter-relationships existing *between different parts or sections within a work or individual movement* ⁵³²

In Figure 8.1. details of Cooke's proposed overall subdivisions in the Violin Concerto are reproduced diagrammatically.⁵³³ Discounting the first two bars (since they here constitute a case of 'excluded' introductory material) the entire work divides precisely by GS (129: 209 bars, the estimate of φ is 0.618343) at the juncture of the statement/restatement in the slow movement.⁵³⁴ Similarly, four tripartite Type II patterns, the uppermost (the primary GS) pattern spanning the same bars as the primary division, the remaining three (secondary patterns) extending successively over lesser numbers of bars, all prove to be golden section

530. Delius, Frederick (1921) (*Violin Concerto*).

531. Cooke, Deryck (1962b).

532 . Quoted from Chapter 1 p. 2.

533 . The upward pointing arrow along the axis array indicates the position of a climactic point and was added by the author. It is not a part of Cooke's analysis.

534 . Figure 8. 1 line 3

tripartite patterns (that is, the outer sections A and A' are in golden section proportion to each other—for verification of this, refer to the RH column of calculations in Figure 8.1).⁵³⁵

The Function of the GS patterns. It will be seen from the end points⁵³⁶ within the four GS patterns that firstly, these define the positions of the seven primary section separators or delimiters⁵³⁷ in the Violin Concerto *viz.* at bar lines 3, 94, 167, 197, 258, 313 and 341 (in the array of events shown in Figure 8.1 these are marked as vertical *bold black* bars along the axis). Secondly, and critical to the understanding of Delius' proportioning strategies, the technique of GS pattern formation sets up a series of GS proportions which are separate (or remote or discontinuous) from one another:

Exposition: (Recapitulation + Scherzo-Finale + Coda) = 91: 144 bars = 0.618343.
 Exposition: (Cadenza + Recapitulation + Scherzo-Finale = 91: 146 bars = 0.616034.
 Slow Movement: (Recapitulation + Scherzo-Finale) = 73: 116 bars = 0.613757.
 Slow Movement – Statement: Recapitulation = 38: 61 bars = 0.616162.

The Function of the Single GS (Type I) divisions. Examination of the primary and secondary divisions shows that for the most part, these are involved in setting the positions of Cooke's secondary delimiters (in the array of events axis shown in Figure 8.1 they are marked as vertical *thin black* bars (not bold) along the axis). They occur at bar lines 41, 78, 132, 236, 247, and 289.⁵³⁸ It can be seen that the GS divisions 'fix' the positions of all secondary delimiters excepting that at bar line 78.

Climactic Points. A second type of GS division, frequent in Delius, occurs where 'climactic points'⁵³⁹ appeared to be linked by GS proportions. This type was for long considered to be a proportioning 'artefact' by the present writer but was found to be so consistently present in Delius works, and often of such high levels of precision, that it was latterly cautiously included in Delius' canon of proportioning techniques. However, it is likely that 'climactic' GS and endpoints are laid down at a later stage of composition than the those remaining

535. For the primary and secondary GS patterns *see* Figure 8.1 line 4 and line 5 respectively.

536. For a definition of 'end points' *see* Figure 2.1 line 2.

537. For separators or delimiters *see* Figure 2.1 line 1

538. GS divisions are shown in Figure 8.1 lines 3 and 6.

539. In a passage of music, *climactic points* are defined mainly as a point of maximum power or accumulated dynamic energy. They differ from a *climax* in that the energy or dynamic reached is at a lower level in a climactic point, and generally occurs over a shorter span of bars, than in a climax, in Delius occasionally amounting to a mere *sforzando*. A familiar example of two climactic points as defined here would be the λ point (bar line 19) and β point (bar line 46) in *Prélude à l'Après-midi d'un Faune* and where the α point (bar line 70) would constitute the main climax (*see* Figure 10.8). Alternatively (and more rarely) a climactic point may constitute (usually) a *fortissimo* entry of an important *theme* in a work e.g. in the Violin Concerto the statement of the exposition main theme *ff* from bar-line 60 constitutes a climactic point. Climactic points are indicated by upward pointing arrows along axis arrays, and as red triangles in the underlying analyses. Several examples of the interconnection of climactic points occur in the Chapters 2 and 3 analyses.

types described above for the Violin Concerto and are best treated as extraneous or extrinsic to the remaining techniques in proportion described here and in earlier chapters.

'Covert' Proportioning. The initial stages of Delius' proportioning practice can easily lie undetected. In the *Violin Concerto*, for instance, there is a preliminary 2: 1 proportioning followed by further division and redistribution of the resulting components. Also, when the entire work is reduced to crotchet 'beats', bisection occurs at the start of the cadenza (bar line 167).⁵⁴⁰

It is worth re-stating here regarding Delius' proportioning techniques (and especially as described under *The Basic Role of Proportion in Delius* above), that Delius' elaborate constructions in the main constitute a way of generating formal interrelationships underlying the music, and that it is not unusual for composers to adopt similar mathematical processes to generate their material in a parallel manner. 'Brian Ferneyhough does this all the time – there's no intention that the patterns become somehow manifest to experience, but that they are there as a ground against which he can project his musical material.'⁵⁴¹

Exceptions to this 'covert' type of proportioning in Delius include the 'ascent formation' which is of relatively rare occurrence, and the very frequent use of proportion in the placement of dynamic climaxes and/or climactic points and establishing proportional interrelationships between these. Further instances of this more 'overt' and aurally discernible use of GS also occur in Movt II of *Songs of Farewell*.

An essential point to note here is that golden section proportioning in Delius' usage only impinges upon other potential compositional components (such as tonality, harmony or thematic development) in as far that it maps out successive delimiters, indicating *the position of potential points of change* (or sometimes *points of completion*) in the music. Golden section proportioning cannot, of course, determine the *nature* of that change (of tonality, thematic development etc.). Delius' techniques of proportion therefore should be considered as complementary to (and not supplanting) other forms of musical analysis.

Points of Change. A listing of some types of change which may occur immediately after a GS point should help in grasping the details of Delius' techniques:

Emergence of a new theme. Cello Concerto: the main *Allegramente* theme emerges from the dominant GS point at bar line 231 (Chapter 7, Figure 7.20). *On Hearing the First Cuckoo in Spring*: The complete quotation of the Norwegian theme *I Ola*

540. See lines 1 and 2 at the top of Figure 8.1 for details of 2:1 and 1: 1 proportioning occurring in the Concerto.

541. Information supplied by Lois Fitch RNCM 31.12.17.

dalom runs from the L: S GS point at quaver 685 (bar line 58) of the central 756 quaver section. Hitherto, only fragments of the theme have been heard (Chapter 1, Figure 1.1). *Irmelin* Act I section A': The initial entry of the hunting theme (four horns) in the 92-bar sector occurs at the GS L: S point at bar line 545/546. (Chapter 4, Figure 4.4 lines 2 and 3).

Completion of a motif or a theme: *Irmelin* Act I instrumental prelude: The L: S GS point of the opening 31-bar limb is at bar line 20, from which point complete versions of two of the main motifs of the opera emerge (Chapter 4, Figure 4.13).

Establishing or reaching a new key/tonality: *Irmelin* Act I section A': Entry into Irmelin's key of F sharp major occurs at the GS S: L point (bar line 523) in the same 92 bar sector mentioned previously (Chapter 4, Figure 4.4). *Irmelin* Act III: A similar entry into F sharp major occurs at the S: L GS point of Act III at bar line 1988/461 (Chapter 4, Figure 4.7).

Positioning of a major dynamic climax. *Three Songs to Words by Shelley*: the second (β climax) of the *Three Songs* occurs at the L: S point (bar line 117) of the entire work and occurs in the second song *Love's Philosophy* (Chapter 2, Figure 2.17.1). *Florida Suite III Sunset*: the main (β) climax of the movement occurs at the L: S GS point at 1701 crotchets (bar line 583). *Idylle de Printemps* the main climax (γ climax) at bar line 162 is positioned both by the primary 2: 1 division as well as by the GS point of the second member of the two-member mixed hierarchy (Chapter 2, Figure 2.14).

Establishing the positions of new musical sections within a work: *Florida Suite I Daybreak*: The second part of Movement I (bar lines 116 – 340) uses the well-known *La Calinda* theme (later to be re-used in *Koanga*). The central section of this second part begins at the S: L GS point at bar line 633/202 whilst the opening music returns at 811/287 which is positioned by a GS subdivision. Bar line 633/202 also signals a change of key signature from D to A major (Chapter 3, Figure 3.3.3). The later Violin Concerto (discussed above) also uses GS to delineate different musical sections. The establishment of new and contrasting sections of music within a work appears to be one of the most important functions of GS in Delius. These often occur together with other developments such as a change of tonality, theme or time signature.

Marking a return or recapitulation of earlier music: A noteworthy example occurs in

the opening chorus of *A Mass of Life* the longer first section (87 bars) being in GS proportion with the shortened reprise (54 bars) the latter beginning at the return of the opening words *O du mein Wille!* (bar line 88). The arrival at the GS point separating the long and short sections is memorably prepared through the use of a long side drum roll and by trumpet fanfares.⁵⁴² A similar situation occurs frequently in tripartite patterns, and complete GS patterns where the opening A section and closing A' sections are in GS. Examples include *The Song of the High Hills* where A: A' = 81: 127 bars, and *Eventyr* where A: A' = 79: 50 bars.⁵⁴³

Dramatic Change or Entry: In dramatic situations, an additional feature associated with GS proportioning includes the entry of a specific character or protagonist. Thus in *A Mass of Life* – Part II, Zarathustra begins his entry recitative *Läßt vom Tanze nicht ab* at the S: L GS point of the 302-bar sector of Pattern 3 (Chapter 7, Figure 7.8 line 4). A clearer example occurs in *Paa Vidderne* of 1888 where the primary GS division (S: L) separates movements III and IV, Movt IV introducing the second main protagonist of Ibsen's poem, the Hunter.

Partitioning of Poetic or Dramatic Texts. *Paa Vidderne* offers some good examples of the placing of successive stanzas of a poem by GS proportioning. Movement IV, for example, which sets six stanzas of the poem, employs the Lucas series – initially to indicate the start of stanza 3, and then by successive subdivisions, stanzas 1, 5 and 6. Movement VI, which sets a further nine stanzas, employs Fibonacci proportioning to place the incipits of stanzas 1, 3, 4, 5, 7, 8 and 9. Changes in the music may also occur in successive stanzas in both Movts IV and VI (Chapter 2, Figures 2.9.2 and 2.9.3). Amongst mature Delius works, *Sea Drift* offers a good example of placing poetic stanzas using GS proportioning (Chapter 7, Figure 7.1).

A useful aid in envisaging the role of GS proportioning in Delius is to imagine a landscape which is to undergo both agricultural and forestry development. Initially, a surveyor might peg out the boundaries of two separated areas of forest within the landscape, which are to enclose strips of agricultural land, the widths of the two forest patches being in golden section proportion. Similarly, the focus of Delius' proportioning is to 'map out' or to deploy musical events within a composition. Although Delius must have had a good idea of the

542. See Figure 7.4 line 2, and music example 7.9 line 1.

543. See Figures 7.14 and 7.18.

thematic material, harmony etc. he was to use at this stage, the position of the various GS and end points in this mapping out process in no way impinges on the actual nature of the harmony or various other compositional components. Delius' procedure merely marks out *points of potential change* in the composition.

Of critical importance regarding Delius' proportioning praxis is that it would be quite wrong to regard or dismiss this as merely a mechanistic procedure, as 'scaffolding' etc. adding no special significance to the overall 'meaning' or 'spiritual' content of the music. On the contrary, in mid-19th century Germany, the Golden Section was thought to hold prime position in the physical structuring of the universe, in Nature and the Human mind so that to reflect and be in accord with this universal archetype the 'perfect' work of art must also be based on the Golden Section. For some commentators, the Golden Section took on metaphysical or mystical aspects. (*see* Chapter 10).

A limitation associated with proportioning techniques. In Chapter 4 mention was made of a significant constraint in using proportion in musical composition:

A difficulty in applying either binary, 2: 1 or GS designs which encompass entire large-scale works, is that the primary points for each type of proportion will occur more towards the *middle* of the composition, so that when the musical or dramatic climax occurs towards the *end* of a work, opportunities for using these primary points (especially in a *rhetorical* or *dramatic* sense) are either curtailed or lost completely. Delius' approaches towards allaying this situation are several.

This general comment also applies to the use of proportion in shorter works, a problem of which Delius seemed aware. A glance at the diagrams of some early works confirms that for example in the *Idylle de Printemps* the final climax (climax δ bar line 198) is poorly accounted for by using proportional analysis, and that in *Summer Evening* the final climax (climax δ bar line 62) although the GS point of a 2- member hierarchy, is similarly 'weak' in concept and appears 'contrived.'⁵⁴⁴ Similarly, in the *Florida Suite* the final (γ) climax is not accounted for by any proportional analysis at bar level, and only very weakly so at crotchet level.⁵⁴⁵ One solution to this problem occurs in *Songs of Farewell* Movt IV which uses the Lucas summation (3, 4, 7, 11, 18 and 29) to place stanza or music incipits, the movement completing *fff* after 29 bars. Another solution is to 'delay' the positioning of the GS and other points, by adding an introduction where this is not included in the main body of proportioning in a composition. Proportioning would then only commence after this introductory period was concluded.

544. *See* Figures 2.14 and 2.16.

545. *See* Figures 3.3.1 and 3.3.2.

Examples of this technique being used include the early *Florida Suite*, *Irmelin* (where Act I is kept largely separated from Acts II and III) and *A Mass of Life*.⁵⁴⁶

Stratification or Layering. A feature of the Violin Concerto is that it makes relatively little use of GS proportion so that for a general overview of 'proportion as form' in Delius reference should be made to the discussions on this topic in Chapters 2, 3 and 13. However, a general feature of Delius' compositions, which is here termed 'stratification' or 'layering' applies also to the Violin Concerto and may now be referred to. If one sets out the 'layers' of proportioning described above together with what might be regarded as the more discernible or manifest compositional forms present, one arrives at the following outline:

An initial subdivision is made of the total 340 bars into a 2: 1 proportion 227: 113 bars. These two figures are then subdivided to create the individual bar totals of the five sections of the Concerto, as well as to form potential groupings of various sections in GS proportion.

A second subdivision (calculated in crotchets) bisects the work at the start of the cadenza

Using Type II GS, the positioning of the seven delimiters confirms the *extent* or *span* of each of the five sectors and sets down proportional inter-relationships between different sectors of the Concerto.

Using Type I GS, the positioning of six secondary delimiters is achieved.

Nine of the ten climactic points are variously interconnected using Type I GS proportioning.⁵⁴⁷

From this we can see that the proportioning of the Concerto consists of four or five strata or layers which have probably been worked out successively, beginning with the primary 2: 1 division. From Cooke's analysis, two further layers are identified:

The outlines of a sonata form which, however, differs widely from any classical sonata, neither employing a traditional tonal scheme nor deploying thematic material in a classical manner. Cooke rejects this for:

A rigorously worked out thematic analysis of the concerto in which nine basic themes and their variants, together with various thematic and rhythmic shapes elucidate Delius' compositional procedures in this work

The above stratification process posits some real difficulties in any approach to the analysis

546. See Figures 3.3.1, 4.1 lines 2 and 3, and 7.3 lines 6 and 7.

547. Only the climactic point at bar line 60 of the Violin Concerto is shown in Figure 8.1. For reasons of maintaining overall clarity, the remaining nine have been excluded from the diagram.

and understanding of Delius' works. Cooke's analysis cannot be deemed 'complete' or 'final' as it lacks any reference to GS (or 2: 1) proportioning, and largely eschews questions of key or harmony. Neither can any concentration solely on proportion in the Violin Concerto be considered a sufficient approach to analysis. This problem becomes acute in the large-scale mature works such as *A Mass of Life*, *Songs of Farewell* and *Eventyr* (as well as such early works as *Maud* or *Irmelin*) in which Delius' bountiful experimentation with proportioning techniques has hitherto remained unacknowledged or unknown. Parallel problems of discerning multi-layering occur with, for example, Delius' early operas, where the esoteric layers of the texts have remained unrecognised, commentators apparently aware of only their more superficial surface narratives. These problems imply that a much wider-based and comprehensive approach to the analysis of Delius' compositions is required than has hitherto been the case, a situation which also applies to any study of Delius the man. Perhaps all this demands a greater input from international scholarship than hitherto.

The choice of works for proportional analysis was originally confined to early compositions composed in Leipzig and Paris (c. 1887 – 1892). These early works (together with Debussy's) currently constitute the most important source of proportioning studies in music known for this period: in Delius' case they form a 'working manual,' a *fons et origo* of his techniques in proportion, and without a sound foreknowledge of these formative works, any proportional analysis of Delius' mature compositions would have proved difficult if not impossible.

Regarding these later works, a request was made to include an analysis of *Sea Drift* (1903 or 1904) and from this it was subsequently decided that examples of analysis of other later and more accessible works should be presented. Most interestingly, it was found that virtually the entire vocabulary of Delius' proportioning techniques used in the mature works had already become well established during the Leipzig and early Paris years. However, in these later works, Delius pursued these same techniques in a more creative and imaginative way especially in several of his (what might be termed) 'Golden Section Works' e.g. *Sea Drift*, *A Mass of Life*, *Fennimore and Gerda*, *Eventyr* and the *Cello Concerto*). Only the *Songs of Farewell* (1920 or 1921) show signs of introducing new techniques as far as proportion is concerned. A brief description of the history, innovation and changes in Delius' proportioning with time may be outlined:

When converted to crotchets, *The Florida Suite* Movt I (Leipzig 1887) clearly shows a preliminary bisection of the entire movement. The technique of converting to crotchets to

establish a single overall division became frequent with Delius (cf. *A Mass of Life*)⁵⁴⁸ and occurs also with Debussy (cf *Prélude à L'Après-Midi d'un Faune*).⁵⁴⁹ Delius, however, had already learnt the technique during his Leipzig studies, before arriving in Paris. This same conclusion applies to the complete switched GS pattern established in section T of Movt I. The second half, section U, of this movement, demonstrates that the process of serial Type I GS division and subdivision, and that the overlaying/overlapping of tripartite Type II GS patterns was also a strategy learnt in Leipzig, rather than later in Paris.⁵⁵⁰ Movt IV of the *Florida Suite* is constructed from a 'quasi' complete GS pattern 56||245: 150||42 crotchets, ('quasi' since whilst the two L: S divisions share the same GS point at crotchet/bar line 2284/767, the outer pair fall short of a precise GS proportion). However, signs of a 'pattern within pattern' construction appear in the 245-crotchet sector of the movement. Conclusions for Movt IV are similar to Movt I: viz. knowledge of 'patterns within patterns' and the complete GS pattern had already been gained by Delius whilst at the Leipzig Konservatorium before his departure for Paris.⁵⁵¹

Hiawatha (Leipzig 1888) the overlaying/overlapping of three tripartite GS patterns develops this process beyond that found in the *Florida Suite* I.⁵⁵²

Paa Vidderne (1888) The overall design of *Paa Vidderne* is the earliest example of creating discontinuous groupings of movements within a work by means of GS patterning. Altogether, eight such patterns were discerned, including one switched and one unswitched GS pattern, with the remaining patterns are all tripartite.⁵⁵³ The impetus for this comprehensive design would have probably arisen with *Hiawatha* and the *Florida Suite* in which superimposed tripartite GS patterns already occur. Movt. IV uses type I Lucas proportioning, the series not having been found in previous works, and possibly therefore of Paris origin.⁵⁵⁴ Movt. VI employs type I (single) Fibonacci proportioning. However, an approximate form of the duple Fibonacci series (2(3, 5, 8, 13, etc.)) had already occurred in

548. See Figure 7.3

549. See Figure 10.8

550. See Figure 3.3.3

551. See Figure 3.3.5

552. See Figure 3.2.2

553. See Figure 2.9.1

554. See Figure 2.9.4

the Florida Suite by 1897.⁵⁵⁵ Movt. VIII is significant as it is one of the earliest incidences of the use of a GS hierarchy Type II (the set here made up of four members). The movement is also an early example of GS subdivision and redistribution.⁵⁵⁶ Movt IX is a rare incidence of the construction of a 2:1 hierarchy, the 2: 1 division at the end of a work signifying joy, attainment etc. and is the first incidence of this idea to be recorded.⁵⁵⁷

The Early String Quartet (two movements only, 1888) is another good example of the use of a GS Type II hierarchy, and notable for its extreme precision. Whether it was composed earlier or later than *Paa Vidderne* Movt. VIII could not be established.⁵⁵⁸

O Schneller mein Roß (*Plus vite mon cheval*) – song (1888) with piano accompaniment (1888) was the first work to introduce an ascent structure, primary 1: 1 and 2: 1 divisions, and climaxes linked by GS. Note that initial ‘covert’ GS divisions and reordering of these were made prior to establishing the main overlying’ proportioning scheme (cf. *Suite for Violin and Orchestra* (c. 1888)).⁵⁵⁹

Sakuntala (1889) was the second work to explore the ascent structure, the dynamic climax occurring from bar line 60 and supported by a mixed 2: 1/GS hierarchy. A second ascent structure, based on a GS hierarchy and traversal through different keys, has its GS point at bar line 36 where (from the number of sharps in the key signature) it reaches the ‘highest key’ (G sharp major).⁵⁶⁰

Idylle de Printemps (1889) shows an advance on *O Schneller mein Roß* in the linking of climaxes/ climactic points by GS and other proportions.⁵⁶¹

The *Trois Morceaux Caractéristiques* (1889 – 1890) are a study in the construction of nested tripartite GS patterns and complete GS patterns, with altogether a total of 10 such patterns being identified. The work eschews any climaxes or climactic points, as well as (largely) any

555. See Figure 2.9.3

556. See Figure 2.9.4a/b

557. See Figure 2.9.5.

558. See Figure 2.10.

559. See Figures 2.11 and 2.12.

560. See Figure 2.13.

561. See Figure 2.14.

use of Type I GS.⁵⁶²

The re-establishment of the two *Petites Suites* (1889 – 1890) into a single continuous work provides a unique insight and opportunity in analysing Delius' later works, both in the respect of the ordering of proportion types in a descending 'top down' hierarchy as well as the transition from GS to 1: 1 during the course of a work. Any presence of climax or climactic point is avoided.⁵⁶³

Summer Evening (1890) is the first work to show a substantial layering or stratification of GS proportioning at two levels: bars and crotchets. At bar level a complex web of (mainly) GS links between the three climaxes occurs, whilst at crotchet level three primary divisions 1:1, 2: 1 and GS are laid down.⁵⁶⁴

With *Maud* (1891) a considerable advance is made on previous works both in the quality of the music and in the calibre and disposition of Delius' proportioning. Especially felicitous is Delius' use of a four-member GS hierarchy the distal end points marking out the complete 2: 1 pattern of Movt V. This closing 2: 1 pattern acts as a precursor to that in *Irmelin* Act III.⁵⁶⁵

In *Irmelin* (1890 – 1892) Delius reaches the summit of his early explorations into proportioning. The multi-layered text however has resulted in very densely argued proportioned and thematic structures the former requiring a knowledge of alchemy for a full appreciation. Act III culminates in a *tour de force* of GS and 2: 1 proportioning, at the same time also pre-empting Debussy's use of 'structural counterpoint'. Other special features include the massive ascent structure at the end of Act I as well as the Act I instrumental prelude, a source of several themes in the opera, two emerging from its first GS point⁵⁶⁶

Considering the above early works as a whole, they display two separate paths in proportioning strategy: those which abjure the use of climax and climactic point, concentrating instead on pattern formation, and those which embrace climax and/or climactic point, focusing especially on experimenting with their interlinking and laying

562. See Figures 2.15.1 and 2.15.2.

563. See Figures 3.4.1, 3.4.2 and 3.4.3.

564. See Figure 2.16.

565. See Figure 3.6.1 and especially Figure 3.6.2.

566. See Figures 4.1 to 4.18, and the text of Chapter 4.

down a further layer in the stratification process. The first group comprises the *Florida Suite* I and IV, *Hiawatha*, *Paa Vidderne*, the combined *Petites Suites*, the early *String Quartet* Movts III and IV and *Trois Morceaux Caractéristiques*. The second group consists of *O Schneller mein Roß*, *Sakuntala*, *Idylle de Printemps*, and *Summer Evening*. A few works explore both pattern and climax together: e.g. the *Suite for Violin and Orchestra* and *Maud*.

Another trend in these early works is their tendency to follow a progressive or 'evolutionary' trajectory regarding individual techniques. Thus, for example, two simple overlaying tripartite patterns first appear in the *Florida Suite* I, (1887) and three such patterns then reappear more conspicuously in *Hiawatha* (by January 1888). Later in 1888 Delius uses a much more elaborate overlaying of patterns in his overall design for *Paa Vidderne* and employs the same technique with even more complexity in the *Trois Morceaux Caractéristiques* (1889 – 1890). Turning to the relationship between the above early works to a selection of later ones, the importance of the early experimental works to the understanding of the better-known later ones should become clearer:

In *Sea Drift* (1903 or 1904) the 'covert' or 'original' stratum of the work took the form 183||111||:182 bars, the GS origin of this form be deriving from the series: $476 \times \varphi = 294$, $294 \times \varphi = 182$ and $182 \times \varphi = 112$. In this 183||111||:182 bar original configuration, the 183 bars are allotted to the narrator, the 111 bars to the orchestral prelude + bird, and the 182 bars to the bird's final long soliloquy. The 183 and 111 bar sections then undergo irregular subdivisions before redistribution.⁵⁶⁷ This 'original stratum' design for *Sea drift* repeats the design found in the *Silver Stream* music of Act II of *Irmelin* viz. 22||36||22 bars, where each of the two outer values is equal and in GS proportion with the inner central section.⁵⁶⁸ The actual idea of covert stratification originates in *O Schneller mein Roß* (1888) and more elaborately in the *Suite for Violin and Orchestra* (c. 1888).⁵⁶⁹ An initial problem of discerning any further proportioning in *Sea Drift* was that there appeared to be no primary division, or pattern (GS, 2:1 or 1:1) and hence no point of entry into any downward hierarchy of proportion. This problem was solved when it became evident that the L: S GS point followed Whitman's text marking the start of the bird's final soliloquy at *Soothe! soothe! soothe!* but where there is nothing especially distinctive in the music. A five-member Type II GS hierarchy is

567. See Figure 7.1

568. See Figures 4.5 and 4.6 line 6.

569. See Figures 2.11 and 2.12.1

constructed from here, the end points largely fixing the position of the textual ‘stanzas’. The Type II hierarchy as used here, derives directly from that used in *Paa Vidderne* VIII. A third feature of Delius’ proportioning of *Sea Drift* is his use of an ascent structure composed of a three-member GS hierarchy, the climax occurring at bar line 334, *You must know who I am, my love*, the two limbs of the upper division tracing moods of increasing hope followed by despair. The precursors of this ascent structure can be found in *O Schneller mein Roß* and *Sakuntala* and later (and very elaborately) in *Irmelin* Acts I and III.

Compared with *Irmelin*, *A Mass of Life* (1904 – 1905) shows a remarkable paring down of the range of GS techniques used. No Type II complete GS patterns are present, and no extended stratum of inter-movement connected climaxes /climactic points occurs in the *Mass*. These same restrictions occur in the much earlier multi-movement work *Paa Vidderne*. As with *Paa Vidderne*, the basic ‘form’ of the *Mass* is made up of tripartite patterns (in the *Mass* there are three only), this design being subsumed under an overarching primary GS division calculated in crotchets. Individual movements are variously proportioned clearly in GS, the closing movements, as between *Paa Vidderne* VIII and IX, transitioning to 2: 1 proportioning. The B sections of patterns 2 and 3 make extensive use of the technique of ‘distribution and re-ordering of the products of GS division.’ Overall, however, there is little evidence of any proportioning procedure occurring in the *Mass* which had not already been established between 1887 and 1892.⁵⁷⁰

An unusual feature of Delius’ final opera *Fennimore and Gerda* (c. 1908 – 1910) is that it adopts the technique of *GS partitioning* i.e. the work is initially divided at bar level irregularly into two parts (which are not in any simple proportional relationship to each other) each part then undergoing (here) a simple (Type I) GS division.⁵⁷¹ The same technique was adopted some 15 years earlier in *Irmelin* Act I where the A’ section is initially divided into 92 + 113 bars, each part then being proportioned separately.⁵⁷² A similar strategy was much favoured by Debussy.⁵⁷³ The most significant feature of *Fennimore and Gerda* is, however, that it is largely proportioned, in a very elaborate and intricate manner, at the ‘crotchet beat’ level. To achieve this, Delius first splits the 11 scenes of the opera into four different groups: I – III, IV

570. See Figures 7.3 and 7.8.

571. See Figure 7.11 lines 1 and 2.

572. See Figure 4.4 line 2.

573. See Chapter 10.

– VI, VII – IX and X – XI and then constructs within each group a large number of (mainly) tripartite patterns whose A and A' sections link different characters and sectors within the group.⁵⁷⁴ The extreme precision of this crotchet level proportioning should preclude any claim of this process being a random or unconscious one. Once again, the origins of this idea can be seen at a much earlier date in the opera *The Magic Fountain* (1894 – 1895) which uses a comparable 'multiple patterning' technique (albeit at bar level with less dense patterning) and where the A and A' sections of each pattern are in 2: 1 proportion.⁵⁷⁵

Although *The Song of the High Hills* (1911) is one of Delius' most admired works, there is little evidence of any innovation in proportioning occurring, early techniques being adopted throughout. The movement is cast as a primary GS pattern, but with subdivision of its B section firstly in 1: 2 and then by GS. The simple GS subdivision and redistribution of the 159-bar sector 'explains' very felicitously the proportioning of the sector beginning at *the wide far distance* up to the end of the middle section at bar line 321. There is substantial proportioning both at bar and at crotchet levels in this work, with a 5- member GS hierarchy constructed around the γ climax, just before *the wide far distance* section.⁵⁷⁶

With its restless and often violent mood, the impression made by *Eventyr* (1917) is quite different from any other Delius work, reminding one instead of perhaps a Bax tone poem, or even of *Tapiola*. The animosity of the music tends to conceal its basic design: a primary S: L GS division with the GS point at the α climax, and a complete GS pattern with its GS point at bar line 174. However, this latter point, although observed in the music, tends to become concealed by the general restlessness of the music around it. Delius' ruse here is that the central section should also be divided at the γ climax to give two sectors 77 and 76 bars. Each sector is then regularly subdivided into Lucas proportions. From the three-member GS hierarchy the work can be interpreted as a study in climax/climactic points and their interconnections which form a dense stratum or layer, and which has been laid down in the compositional process at a later stage than the earlier GS pattern.⁵⁷⁷

In terms of proportion, the *Cello Concerto* (1920 – 1921) shows a considerable advance

574 . See Figure 7.12.

575 . See Figure 5.3 line 5.

576 . See Figures 7.14 and 7.15

577 . See Figure 7.18.

compared to the earlier *Violin Concerto*. However, like the *Violin Concerto*, initial care is taken to ensure various sections of *Cello Concerto* are in GS proportion to one another.⁵⁷⁸ The subsequent overall design is then achieved using a (potentially) 5- membered GS hierarchy. However, for two members of this hierarchy, numbers 1 and 4, Delius includes only the LH limb of the division in his scheme. The GS point of this hierarchy lies at the beginning of the *allegro* theme at bar line 231, thus focusing the entire *Concerto* onto this point.⁵⁷⁹ Regarding the separately designated sections of the *Concerto*, if the 'interpolated' *Lento* slow movement is initially omitted, leaving the *Introduction*, *Exposition*, *Development* and *Recapitulation* to run consecutively, then a clear 1: 1 pattern with a GS two member hierarchy as the B section is revealed.⁵⁸⁰ This whole *urform* is however dispersed with the interpolation of the *Lento* section, which leaves instead a symmetrical GS pattern with an inner 1: 1 frame and outer GS frame.⁵⁸¹ Sections 1b, III and IV together comprise a second complex design, 26||19||25:15||:29||:40|| effectively a switched complete GS pattern with a double frame.⁵⁸² Another salient feature of this concerto is its use of GS division to place the position of the various thematic entries.

Although compared with the majority of works belonging to Delius' earlier maturity *Eventyr* and the *Cello Concerto* perhaps display an advance in creativity and imagination in the use of proportion, *The Songs of Farewell* is the only piece in which signs of actual fresh techniques of proportion have been traced.⁵⁸³ Salient features of this work include the overall preliminary subdivision and patterning in 2: 1 and 1: 1 proportion (signifying here possibly a sense of boundlessness and of the trans-mundane),⁵⁸⁴ the use of ascent structures in Movts. I, II, III and V, and a constant reference to the Lucas series (Movts. II, III, IV and V). An innovation in Movt. I concerns the Text II ascent structure which places the lines of the text using the additive series 3, 7, 10, 17, and 27, and where the incipits of successive lines are placed immediately after successive members of the series. A similar strategy is used in Movts III and IV. Also innovatory is the introduction in Movt II of a 'condensed' complete GS pattern, 88||108: 70||: 58 crotchets, in which the A' section (58 crotchets) of the pattern is

578. See Figure 7.20 line 1.

579. See Figure 7.20 lines 2 and 3.

580. See Figure 7.21 line 1.

581. See Figure 7.21 line 2

582. See Figure 7.21 line 3.

583. *The Songs of Farewell* are regarded here as mostly emanating from the early 1920s.

584. See Figure 7.25

superimposed on the B'' section (70 crotchets). That this is not a wholly fortuitous event is suggested by the same idea being used in Movt III. A third new development in *The Songs of Farewell* is the embedding of GS reference into the musical motives of Movt. II. Allusions to the Lucas series are made in the instrumental introduction and postlude to the movement: 'The opening cello passage extends for 29 beats (28 crotchets + 1 rest) before being repeated. Also, this same passage may possibly be subdivided after 11 beats. The theme on horns at bar line 69 extends for 18 crotchet beats, whilst that on the oboes at bar line 71 lasts for 7 beats.' This last development is a third example of GS entering (much) later in the proportioning process than the initial laying down of delimiters described for the Violin Concerto above. Similar instances of a later ingress of proportion into a composition would be the very common layering of climaxes and/or climactic points which are all interconnected (usually) by GS, and the construction of ascent configurations (also most often by GS – but with their occurrence being relatively infrequent).⁵⁸⁵

Some Steps and Procedures used in the Proportional Analysis of Delius' Works.

Downward Hierarchies of Proportion in Delius. An initial problem faced was to determine whether adequate analyses can be carried out through making observations directly from the printed score. Would a comprehensive analysis emerge from, for example, examining a composition movement by movement or passage by passage, and gradually building up an overall idea of the proportioning of a composition? The answer to this question was negative: such an approach would prove to be defective as well as an historical mistake; the reason being that Delius begins his proportioning initially over the entirety of (or otherwise large sections of) a composition and works hierarchically 'downwards to proportion progressively smaller and smaller sectors. Delius' practice parallels a basic idea of the aesthetics of GS proportion proposed by Adolf Zeising in mid-nineteenth century Germany:

. . . it lies in the essential nature of proportional figures, that in their formation there is always a step-by-step progression from the unity of the whole to a multiplicity of parts, so that the whole firstly divides into two main parts, then from these, further division continues until there can be no further reduction⁵⁸⁶

'Mapping' of Musical Events. It followed from this that a 'diagrammatic' approach to analysis

585. For individual movements of *The Songs of Farewell* see Figures 7.26 – 7.29.

586. Zeising: *Neue Lehre von dem Proportionen des menschlichen Körpers* pp 154 – 155. See Chapter 10.

would be the most appropriate, and that the first main procedure would be to 'map out' musical events along a horizontal axis termed an 'array'. With Delius, these events have been restricted to include only delimiters (primary and secondary), climaxes or climactic points, and sometime key and time signature changes. It is essential that this mapping be drawn accurately to scale, a task best achieved using of a computer drawing programme.⁵⁸⁷

The Initial Steps in Analysis:

Confirming the presence of any Primary Division(s) in a Composition. A composition may be initially divided by 1: 2 proportion, by GS or (rarely) by bisection. Occasionally, introductory material may be omitted from the proportioning, or proportioning may be carried out at crotchet reduction- rather than bar level. Example GS calculations for a hypothetical work totalling 205 bars long, with a 35-bar introduction would run:

Confirming the presence of any primary GS proportion: The overall L: S GS point would come after $205 \times \phi$ bars = 205×0.618034 bars = *after* 126.70 bars = approximately *after* 127 bars = bar line 128 on the axis array. To calculate the S: L GS value a second multiplication (by ϕ) of the first value obtained is carried out *viz.* $126.70 \times \phi = 78.30$ bars = *after* 78 bars = bar line 79

Confirming the presence of any primary GS proportion omitting the introductory material: The calculation is precisely similar to the above *viz.* The L: S GS point would come after $(205 - 35) \times \phi + 35 =$ *after* 140.07 bars = at bar line 141. The S: L GS point would be after $(205 - 35) \times \phi \times \phi + 35$ bars = 99.93 bars = *after* 100 bars = bar line 101.

In practice, since Delius uses GS more than any other proportion, the presence of a primary GS division should be tested before any 2: 1 proportioning or bisection. For the equivalent 2: 1 proportioning to the above GS see the footnote below.⁵⁸⁸ From the above GS calculations for an overall primary division, it should first be checked if either or both of the two calculated GS points (at bar lines 128 and 79) coincide with a primary delimiter or a major dynamic climax (rather than a climactic point). If they do, a

587. LibreOffice Draw was successfully used throughout by the writer.

588. *Confirming the presence of any primary 1: 2/2: 1 proportion:* the overall L: S 2: 1 point would come after 205×0.666667 bars = *after* 136.67 bars = approximately *after* 137 bars = at bar line 138 on the axis array. Similarly, to find the corresponding 1: 2 point, simply divide the figure 136.67 by 2 = 68.34 bars = approximately *after* 68 bars = at bar line 69.

Finding any primary 1: 2/2: 1 proportion omitting the introductory material: Firstly, deduct the 35-bar introduction from the total bars $205 - 35 = 170$ bars, then continue the calculation as previously: 170×0.666667 bars = 113.33 bars. Now add this figure to the number of introductory bars: $113.33 + 35 = 148.33$ bars. The L: S 2: 1 point would now fall after approximately 148 bars = bar line 149. Calculation of the S: L 1: 2 point would be similar: divide 113.33 by divide by 2 and add 35 bars = $113.33/2 + 35 =$ *after* 91.67 bars = *after* 92 bars = bar line 93.

horizontal line should be drawn under the array spanning the entire work and indicating the position the relevant GS point and its corresponding event on the array. Each sector of this line (one either side of the GS point) should be labelled with the number of bars spanned, *i.e.* (for a L: S GS division) the number of bars would be 127: 78.

Assessing the accuracy of the purported GS division: This is calculated as follows: first find the exact value in bars for the GS point = $205 \times \varphi = 126.70$; subtract this value from the actual approximate value substituted = $127.00 - 126.70 = 0.30$ bars. This means that this approximate value of 127 bars deviates by 0.30 bars from the precise GS value: it would need to 'relinquish' 0.30 bars to its 78 bar GS complement for a precise GS proportion to occur. This first result is expressed in the diagrams of Annexe II as: $127: 78 = \text{GS} \pm 0.30$ bars. A second statistic is then added, which compares the approximate value approaching φ which was actually obtained, with φ itself: thus bars in the longer GS segment/total bars = $127/205 = 0.619512$. This gives a value above φ of $+0.001478$ expressed in a formula as $0.619512 = \varphi + 0.001478$. These statistics are basic to the understanding of the accuracy of the analyses presented in Annexe II and generally appear to the far RH side of the A3 page opposite the division referred to. Thus:

$$127: 78 = \text{GS} \pm 0.30 \text{ bars.}$$

$$0.619512 = \varphi + 0.001478$$

For the first statistic, the limit which has been accepted for inclusion as a GS proportion in bars has normally been: up to 1.50 bars or less. Generally, values have been much less than this, lying within the range of 1 bar or less deviation.

For the second statistic, the upper limit has been $\varphi + 0.010000$. Again, actual average values for deviation from φ has been somewhat lower than this value.

Confirming the presence of any Primary Pattern in a Composition: A GS pattern occurs when two passages which are in GS proportion (designated by A and A') are separated by a third passage (designated B). In some primary GS patterns, the music of A and A' is similar in some way whilst the B section is contrasted. In other patterns all three parts are different. The first step in analysis, is to decide the position and extent of the potential A section. This may amount to only a small number of bars (as with the *Violin Concerto*) or (as in *A Mass of Life*) to several separate movements combined. If one works directly on a computer screen, the best strategy is to set a pair of geometric dividers first to the corresponding 'short' value

of the potential A section, scroll horizontally to the end of the work and see if any passage will 'fit' the short value. If not, repeat the same process with the dividers set to the equivalent 'long' section of A and repeat the procedure. If either of these moves confirms the presence of a primary pattern, this should be drawn in under the array as for the primary division above. The B section should then be tested to see if it is divided by GS. If so, the pattern would conform to a complete GS pattern.

The above presents the basic techniques which should be mastered to carry out any proportional analysis of Delius' music. If one wishes to proceed farther down the hierarchy of proportion, the same techniques described above and in Chapter 2 can be applied to progressively shorter sectors of music. This is if one learns to follow the thread of Delius' division and subdivision. The best way to overcome any difficulties and gain familiarity in understanding Delius proportional praxis is to perform one's own analyses, bearing in mind some of the tips and refinements given in the current chapter and elsewhere in this thesis.

* * * * *

Chapter 9: The Golden Section among French Artists 1879-1895: An Overview and Chronology

Delius' proximity to and his accord with the community of artists in 1890s Paris has been documented by several authors,⁵⁸⁹ the first evidence of this interest having been intimated in a letter to Grieg written shortly after his arrival in Paris in early May 1888: 'I'm meeting up with a great many artists, musicians and poets, but am getting little work done.'^{590/ 591} From about 1892⁵⁹² Delius began frequenting *Charlotte's Crémérie* at 13 *Rue de la Grande Chaumière* in Montparnasse, one of the main gathering places for artists in 1890s Paris.⁵⁹³ Also, by early 1890, Delius had met William Molard who was to become one of his closest friends during the period of Delius' residence in Paris, and who was to host gatherings throughout the 1890s, of artists, musicians and writers at his home at 6 *Rue Vercingétorix*.⁵⁹⁴ Between January 1894 and late June 1895 Paul Gauguin rented the studio above the Molards at the *rue Vercingétorix*, his presence there attracting an additional array of literary and artist friends, and where a free and fluid movement of visiting guests quickly developed between Gauguin and the Molards.⁵⁹⁵ A group of artists who would have held a potential interest for Delius were the *Nabis* who had been formed following the painting by one of their group, Paul Sérusier, of *Le Talisman* under the supervision of Gauguin.⁵⁹⁶ From Sérusier's short treatise

589. See Carley (1975 & 1983), Boulton Smith (1983), Millroth (1993) and Crombie (2003).

590. *Ich komme zusammen mit viele Maler, Musiker & Dichter Arbeiten aber kann ich wenig* – Oelmann p. 42.

591. The first named artist with whom Delius became friendly was Charles Boutet de Monvel (Paris 1855 – 1913) whom Delius had known since c. February 1889. Boutet had attended the *École des Beaux Arts* from 1874, and, at the time Delius knew him, was a portrait and landscape painter (Monvel, 2013).

592. During late 1891/early 1892 Delius had moved from his lodgings in Croissy-sur-Seine to an apartment at 33, *Rue Ducouëdic*, in the Petit Montrouge district of Paris. This was about 1.5 km walking distance from *Rue de la Grande Chaumière*.

593. For a history of the *Crémérie* and its clientèle see John Crombie's monograph (Crombie, 2003).

594. William Molard (1862 – 1937) was an amateur musician who had studied at the Paris Conservatoire under Émile Pessard. 'Many of the students from Pessard's class gathered at *Rue Vercingétorix* to discuss new music and to perform there' (Millroth p. 108). For Delius' close friendship with Molard and his family see Millroth p. 109.

595. When he was in residence, Gauguin hosted a series of 'Thursday receptions' whilst the Molards similarly held 'at homes' every Wednesday. Millroth states that Delius, Leclercq, Seguin, Maufra, Morice, Mucha, Slewinski, Boutet de Monvel and de Monfreid belonged to the inner circle of friends around Gauguin at this time (Millroth p. 136). [*Julien Leclercq* (1865 – 1901) was a writer on symbolism, poet and art critic; *Armand Séguin* (1869 – 1903) and *Maxime Maufra* (1861 – 1918) were painters; *Charles Morice* (1860 – 1919) was an essayist and poet and writer on symbolism; *Alphonse Mucha*, (1860 – 1939) was a painter and decorative artist who became a leader in the *Art Nouveau* movement. He studied at the Académie Julien at the same time as members of the future Nabis group; *Wladyslaw Slewinski* (1854 – 1918) was a Polish painter associated with Gauguin and the Nabis; *George-Daniel de Monfreid*, (1856 – 1929) was a painter who studied at both the Académies Julien and Colarossi. He was a close friend of both Gauguin and Delius, and like them, something of an adventurer, travelling to both Algeria and Ethiopia in his later years.

596. *Le Talisman* was painted in October 1888 at Pont-Aven a small village near the south coast of Brittany, and which, in addition to the *Nabis* attracted many other painters of varying affiliations. The Nabis themselves began

ABC de la Peinture published towards the end of his life we know that he was aware of the theoretical aspects of the golden section proportion.⁵⁹⁷ However, several investigations into his use of GS have either proved inconclusive, or results between different scholars have been conflicting.⁵⁹⁸ In view of Delius' intense involvement with GS proportioning, and his proximity in Paris to members of the Nabis and other Pont-Aven painters during the early 1890s, it is likely that he himself would have sought out individuals in order to gain further knowledge and ideas on GS and proportioning. With this in view, an investigation on any use of GS by Sérusier and two of his associates, Jan Verkade⁵⁹⁹ and Charles Filiger,⁶⁰⁰ is presented, especially in order to ascertain any parallel usage or similarities between Delius and these artists. Included in the survey is also Georges Seurat, possibly the first French artist of the period to attract speculation regarding the use of GS proportion within his paintings, and whose main period of activity ranged earlier than Sérusier's, *viz.* from the early 1880s until his death in 1891.⁶⁰¹

Terminology and techniques used. The terminology used in describing GS procedures in the artworks illustrated is shown in Figure 9.1. The subdivision of either of the two vertical borders of a painting or drawing by GS is defined here as 'S: L' if the upper limb is the shorter of the two, and conversely 'L: S' where the upper limb is longer.⁶⁰² All measurements on the paintings shown in the illustrations were carried out on images which had first been

as a small group initially comprised of students at the Académie Julien including Paul Sérusier (1864 – 1927), Maurice Denis (1870 – 1943), Pierre Bonnard (1867 – 1947) and Paul Ranson (1861 – 1943) with Edouard Vuillard (1868 – 1940) and Félix Vallotton (1865 – 1925) joining the group in 1889–1890 (Boyle-Turner 1988 p. 152). The Dutchman, Jan Verkade (1868 – 1946) joined the Nabis in 1891 (Smitmans *et al.* 2007 p.10). Regarding Sérusier, Crombie remarks: 'another habitué [of Madame Charlotte's Crémérie] was Paul Sérusier, the 'ruddy-bearded Nabis' . . . [who] sometimes brought along with him the rest of the Nabis brotherhood from Julian's rival [*i.e.* Colarossi's] academy (Crombie p. 35). Millroth confirms also Sérusier's frequent attendance at 6 rue Vercingétorix, and who 'was one of those who stood closest to Gauguin' (p. 137). Although the literature pertaining to both Sérusier and Delius makes no mention of their knowing each other, it seems likely that they would have been at least acquainted, given that they were habitués of the same meeting places.

597. Sérusier, P. (1921) *ABC de la Peinture* Paris in: Denis, Maurice (1942) *ABC de la Peinture, suivi d'une étude sur la Vie et l'Oeuvre de Paul Sérusier* Paris: Librairie Floury.

598. For a summary of work up to c. 1980 see Boyle-Turner (1983) p. 160. For two contrasting views of Sérusier's involvement with GS see Neveux (1991) and Herz-Fischler (1997).

599. Jan Verkade frequented Charlotte's Crémérie in the early months of 1891 (Crombie p. 34 – 35), but no record has been found of his attendance at the Molards'. He became a close friend of Sérusier who introduced him to the remaining Nabi members. From April 1894 he was associated with Beuron Abbey in southern Germany, eventually being ordained there as a Benedictine monk (Boyle-Turner and Smitmans (1989) p. 182 – 3).

600. Charles Filiger (1863 – 1928) became a close friend of Verkade, and other Nabis members. After studying at the Académie Colarossi, he moved in 1888 to Brittany, where he spent most of the remainder of his life (Musée Départemental du Prieuré p. 108 –117).

601. See Herz-Fischler (1983) and Neveux (1991) for two differing conclusions on Seurat's use of GS. Also, both authors provide a summary of previous accounts on Seurat and GS.

602. cf. Figure 9.1 no 3.

downloaded into a drawing programme, in order that the positions of potential GS points *etc.*, could then be exactly pinpointed by reading off their cursor positions on a millimetre scale. A similar technique was used in determining the relative lengths of the horizontal and vertical borders of a painting. This process was carried out under conditions of high magnification as necessary. A summary of the results obtained for each artist mentioned above is as follows:

*Georges Seurat Overall Format: the Golden Rectangle (GR).*⁶⁰³ Here, the longer and shorter sides of the canvas (or other surface used), are in GS proportion with one another.⁶⁰⁴ *Le cheval noir*,⁶⁰⁵ from a series of fifteen oil-on-wood studies for *Une baignade, Asnières* (1883–1884) is one of several examples of a very precise GR format in the series. However, *all* of Seurat's oil sketches were painted on panels of wood whose dimensions already corresponded approximately to a GR format, so that, taken as an individual group and without further information, any intentional use of a GR format might here be called into question.⁶⁰⁶ *Overall Format: the Double Golden Rectangle (DGR).* These comprise either two side-by-side vertical GRs or two stacked horizontal GRs.⁶⁰⁷ All fifteen DGR examples for the period 1877/79 – 1886, use a range of different canvas sizes, and several display very precise GS proportions.⁶⁰⁸ For those canvases with painted borders,⁶⁰⁹ measurements should be restricted to the painting proper, and exclude the border.

*Embedded or Concealed Grs.*⁶¹⁰ Those paintings with a border enclosing a GR or a DGR (as above) are of this type.⁶¹¹ The lower part of *l'Invalide* and of *La Parade de Cirque*, (*i.e.* the latter painting with just the upper strip of gas lights excluded), constitute earlier and later

603. Plate 9.1, *see also* Figure 9.1 nos 1 a and 1 b.

604. *viz.* first sum L + B of the picture, then divide the *longer* side (either length or breadth) by L + B. For GS subdivision of a vertical or horizontal border, the calculation is similar, the *longer* segment of the subdivision being divided by the total length of the border in question.

605. Plate 9.1 no 5.

606. Zimmermann writes: 'His oil sketches, which he called *croquetons*, were usually painted, after the beginning of the 1880s, on wooden panels of about 15 x 25 cm. which he prised out of old cigar boxes. Larger paintings in a more elaborate technique were always done in oil on canvas. (Zimmermann 1991, p. 9)'. Concerning the wooden panels, it is not stated, whether these were subsequently re-shaped after removal or whether the 15 x 25 cm were the original *in situ* dimensions.

607. Figure 9.1 nos 2 a and 2 b.

608. Figure 9.2.

609. Plate 9.1 nos 4 and 6 (examples are taken from Filiger).

610. Figure 9.1 nos 6, 7 and 8.

611. *See* Figure 9.1 no 7; Plate 9.1 nos 4 and 6; Figure 9.2 nos 9, 13 and 14.

examples of a similar idea of GS concealment.⁶¹²

Subdivision of the vertical border(s) by GS. This occurs when the levels of a horizontal line and of a GS division across the composition, coincide. In Seurat, instances where this technique is used often involve representations of sea/sky or sea/land horizons, where extended level lines may traverse a composition. The technique is used frequently in non-GS rectangles as well as both GRs and DGRs.⁶¹³ Occasionally, a second horizontal GS subdivision occurs or is implied.⁶¹⁴ Generally, in Seurat, lines arising from a GS point on a vertical border all extend in a horizontal manner across a painting; a single exception being *Paysage, l'Île de la Grande Jatte* where a gently descending curve occurs.⁶¹⁵

Subdivision of the horizontal borders by GS. This leads to a situation where a vertical line in the composition and the vertical GS 'cut' correspond with one another. An example is Plate 9.1 no 7 where the silhouetted sailing boat is separated from remaining design by a GS division running from upper to lower horizontal borders.⁶¹⁶ Similarly, in *Le cheval noir* the (fitted) vertical subdivision separates the seated figure on the left from the remainder of the composition.⁶¹⁷

Paul Sérusier

Overall Format: the Golden Rectangle (GR). No examples were found in Sérusier's earliest (1888 and before) works, and examples of GRs were very few before the mid-1890s. From then on, they were used regularly until Sérusier's last years.⁶¹⁸ Statistics on a sample of 88 GRs⁶¹⁹ indicated that estimates of GS proportion were normally distributed around φ with an overall mean value of 0.618820 ($= \varphi + 0.000786$).

Overall Format: the Double Golden Rectangle (DGR). In contrast to the GR, paintings in DGR format were frequent for the period 1888 – 90 and include therefore some of his earliest

612. Plate 9.1 nos 3 and 9.

613. Figure 9.1 nos 3 and 4; Plate 9.1 nos 2, 5, 6, 7 and 8.

614. As in Plate 9.1 no 6.

615. Plate 9.1 no 4.

616. cf. also Figure 9.1 no 5.

617. Plate 9.1 no 5. Since the painting is already in GR format, further subdivision by GS in both vertical and horizontal directions leads to the formation of further GRs and to perfect squares within the composition. Thus, the vertical subdivision places the entire seated figure on the left within a vertical GR, the remaining picture being contained within a square. The horizontal GS subdivision positions the seated figure's head within a horizontal GR, and his body within a square, whilst the boy and horse on the right are situated within a further horizontal GR.

618. Examples of GRs illustrated here include Plate 9.4 no 4, and Plate 9.11 nos 8 and 12.

619. Figures 9.3. and 9.5 (upper).

surviving paintings.⁶²⁰ Statistics on a sample of 141 paintings in DGR format⁶²¹ again indicated the precision of Sérusier's GS measurements: the overall mean value for estimates of φ being 0.616629 ($= \varphi - 0.001405$).⁶²²

Subdivision of the vertical border(s) by GS: a. *Horizontal lines.* As with Seurat, horizontal compositional lines traversing a painting frequently correspond with the line of a GS 'cut' and may be associated with the line of juncture between land and sea, sea and sky *etc.*⁶²³ Also, in Sérusier, man-made artefacts can also function as a horizontal plane.⁶²⁴

b. *Lines or curves ascending or descending from a vertical border GS point.* This idea seems largely to have originated with (or been developed by) Sérusier himself, earliest examples occurring from c. 1888 – 1890.⁶²⁵

Secondary GS subdivision of vertical borders. This involves the subdivision by GS of a *discrete portion* or *sector* of a vertical border.⁶²⁶ This may occur where there is already an overall primary GS division of one of the vertical borders,⁶²⁷ but also when this is absent.⁶²⁸ Examples of this type of secondary subdivision are concentrated mainly (in those paintings which have been dated), between c. 1888 – 1891.

Subdivision of the horizontal borders by GS. Very frequently, the extremities of a human figure (extended hand, foot, line of back *etc.*) are 'in contact' with or 'touch' a vertical GS subdivision.⁶²⁹ In *Les Tétraèdres*, the point of intercept between the vertical and horizontal GS subdivision is at the apex of the largest tetrahedron. Since the picture is already in GR format, these divisions lead to two secondary GRs and a square, together with an additional non-GR rectangle as explained for *Le cheval noir* above.⁶³⁰

Jan Verkade

Only a relatively small proportion of Verkade's paintings display any use of GS strategy.⁶³¹

620. Plate 9.2.

621. Figure 9.4.

622. See Figure 9.5 (lower).

623. Plate 9.3 nos 1, 3, 5 and 6.

624. Plate 9.3 nos 2 and 4.

625. Plate 9.4 nos 1 – 5, Plates 9.5 – 9.10.

626. Plate 9.4 nos 1 and 3, Plates 9.5 – 9.8.

627. Plates 9.6 – 9.8.

628. Plate 9.5.

629. Plate 9.11 nos 1 – 7, 10 – 12.

630. Plate 9.11 no 8. *cf.* Plate 9.1 no 5).

631. Boyle-Turner, C. & Smitmans, A. (1989) and Smitmans, A. *et al.* (2007) were the two main sources of

Two GRs⁶³² and two DGRs⁶³³ constitute the only examples of their kind found. *Le Pouldu* shows the same secondary GS subdivision of the vertical borders as was found in contemporary paintings by Sérusier⁶³⁴, whilst both *Trois Vaches* and *Le Pouldu* present ascending or descending curves which originate from the GS points along the vertical borders. *Paysanne de St-Nolff*, perhaps due to its geometrical scheme, pursues a relatively high level of GS activity within the design, all three horizontal GS 'cuts' clearly coincident with horizontal lines within the painting's composition.⁶³⁵ As with Seurat's *le cheval noir*⁶³⁶, the seated figure is largely contained within a vertical GR, the lower body within a square, and the head within a second (horizontal) GR. *Friedhof in Palästina* constitutes the only painting identified as employing GS techniques, and belonging to a later period of Verkade's life than his association with the Nabis in France, *i.e.* as a monk at Beuron in Germany.⁶³⁷ A review of Verkade's few artworks which date from before his first encounter with the Nabis in 1891 indicated that he had not used GS proportion during that time.

Charles Filiger

Examples of the GR and DGR are shown, both paintings being enclosed in an outer painted frame, not itself part of the GS proportion.⁶³⁸ The lower section of *Architecture symboliste* is also a concealed GR.⁶³⁹ *Paysage de Pouldu*,⁶⁴⁰ probably the most intricate of GS designs dating from the early 1890s, comprises a vertical GR (e f c h) and, *with the strip of sky excluded*, a horizontal GR

(a b c d). Unusually, some remote GS pairings also occur within the design of the painting.⁶⁴¹

Although none of the series known as *Notations Chromatiques* can be dated, *le vrai portrait du*

Verkade's works used in this study. Details of a few additional paintings were accessed from internet sites.

632. Plate 9.12 nos 1 and 6.

633. Plate 9.12 nos 2 and 3.

634. *cf.* Plates 9.12 no 5 and Plates 9.3 – 9.10.

635. Plate 9.13 (lower).

636. Plate 9.1 no 5.

637. Plate 9.12 no 6.

638. Plate 9.14 nos 1 and 2.

639. Plate 9.14 no 3.

640. Plate 9.13 (upper).

641. *Paysage du Pouldu* resembles in several respects Seurat's *La Parade de Cirque* which also comprises a square (to the left) and a vertical rectangle (to the right). Omission of the strip of gaslights (Seurat) or the strip of sky (Filiger) both leave a horizontal GR. Also, the Seurat displays a plausible instance of a remote GS pairing, the lengths of the top of the table (on which the trombonist stands) and the balustrade (behind which the three musicians stand extending up to the trombonist) = 25.44: 41.11 mm = GS \pm 0.02 mm; 0.617731 = φ – 0.000303 (*see* Plate 9.1 no 9).

*juif errant*⁶⁴² has been regarded as the first of Filiger's paintings to tend towards their style.⁶⁴³ Two separate instances of GS proportioning occur in the painting, the first placing the outer (predominantly red) frame in GS proportion with inner parts of the picture, the second positioning the head centrally within the design, by using the symmetrical GS pattern. The two paintings from *Notations Chromatiques* follow similar GS design strategies.⁶⁴⁴

One of the most significant aspects of these findings was evidence that Seurat's use of GS dates from as early as c.1879⁶⁴⁵ or 1881.⁶⁴⁶ Also, the precision of GS measurement, for example, of his earlier DGR canvases,⁶⁴⁷ shows that there should be no confusion here between GS and the 3/5ths (0.600) and although three pictures in 5/8ths (0.625) proportions may occur, the overall mean of the samples remains 0.618127.⁶⁴⁸ Among previous studies of Seurat's use of GS, the only one to propose his early familiarity with GS was that by Neveux who writes:

Seurat's work before his meeting with Charles Henry⁶⁴⁹ ends with *La Grande Jatte*.⁶⁵⁰ All [...] examples [...] show, clearly, that Seurat, in the period prior to this meeting had already implemented several compositional rules which involved [some] deliberate geometry [...] More importantly, we see without any doubt, that he did not neglect the golden section [...] he had recognized its advantages or limitations and used it with precision [text abbreviated]⁶⁵¹

A further indication of Seurat's early use of GS comes from several paintings in which the

642. Plate 9.14 no 4.

643. Marie Anquetil quoted in Fell, J (2011) p. 16. The painting exists in two versions (nos 153 and 154 in Jacob 1989) no 153 being the version discussed here.

644. Plate 9.14 nos 5 and 6.

645. For example, the DGR of *Tête de jeune Fille* Plate 9.1 no 1.

646. For an example of the early subdivision of vertical borders by GS see Plate 9.1 nos 2 and 3.

647. Figure 9.2

648. However, a larger sample than was here available (N = 15) would be needed to test that the three values ≥ 0.62500 represent the extremes of the distribution of ϕ or not.

649. Charles Henry (1859 – 1926) French aesthetician and theoretician, influential on Seurat, and sometimes also considered to have been the originator and promulgator of GS in France. Seurat is thought to have first met Henry at the last Impressionist exhibition in May 15 – June 15, 1886, in Paris. For a detailed account of Henry's theories and influences see Zimmermann (1991) Chapters V – VII.

650. i.e. *Un dimanche après-midi à l'île de la Grande Jatte* painted 1884–86, DH 162.

651. The full text reads: *L'oeuvre de Seurat avant sa rencontre avec Charles Henry, s'achève avec La Grande Jatte. Les quatorze exemples ci-dessus montrent, à l'évidence, que Seurat, dans la période antérieure à cette rencontre avait déjà mis en oeuvre des règles de composition faisant intervenir une géométrie délibérée. Parmi ces règles figure le découpage horizontal ou vertical, tant de la hauteur H que de la largeur L. en fractions égales (1/2, 1/3, 1/4). Mais surtout, on constate indubitablement qu'il ne semblait pas ignorer les sections d'or, qu'il en avait repéré les avantages ou les limites, soit sur la hauteur, soit sur la largeur, et qu'il les construisait de manière précise (caractéristiques sur lesquelles nous insistons et sur lesquelles nous reviendrons plus loin).* Neveux (1991) p. 196.

vertical borders have been subdivided by GS leading to a horizontal 'cut' – either L: S⁶⁵², S: L⁶⁵³ or with sometimes both cuts being indicated.⁶⁵⁴ A number of additional early paintings also display horizontal GS subdivision. A single possible vertical 'cut' was found, combined with a horizontal one, in *Le Phare de Honfleur*.⁶⁵⁵

Regarding the later painting, *La Parade de Cirque* (1888) no evidence suggesting any complex internal design using GS was observed.

In cases where it has been found that Seurat had sketched a preparatory grid on a canvas or other surface⁶⁵⁶ prior to his beginning a painting, and which shows no evidence of any resulting grid rectangles *etc.* being in GS proportion, this in no way suggests that the painting must then lack any GS content. For all the artists under review, there is strong evidence that GS proportions are measured predominantly *at the edges* of the canvas or other support used and are therefore independent of any accompanying grid. All that is required would be a preliminary precise measurement of the edge of the painting in question, followed by the calculation of the position of required GS points, the exact points at the edge of a canvas could then be indicated by a simple mark (pencil or paint dot *etc.*). A further observation relates to the chronology and use of GS by Paul Sérusier, who had clearly begun to employ this proportion (in the form of the DGR),⁶⁵⁷ as early as 1888 or 1889, and had introduced two of his most innovative ideas on GS technique⁶⁵⁸ also between those dates. Several writers on Sérusier⁶⁵⁹ have suggested that his interest in GS arose only following his exposure to ideas on proportioning emanating from the Benedictine Abbey at Beuron in southern Germany, an exposure which would have begun in August 1895 when Sérusier visited his former Nabi friend, Jan Verkade, now a monk at Beuron, whilst working temporarily at the Abbey of St. Gabriel in Prague.⁶⁶⁰ However,

652. Plate 9.1 nos 2, 4 and 7.

653. *ibid.* nos 5 and 8.

654. *ibid.* no 6.

655. *ibid.* No 7.

656. See Neveux and Huntley (1995) pp 51 – 62.

657. See Plate 9.2

658. *viz.* firstly, descending and ascending lines or curves originating from GS points along the vertical edges of the painting; secondly, the subdivision by GS of *independent and separate sections* along either or both vertical edges (which may also, at the same time, be subdivided as a whole by GS) – see Plates nos 9.3 – 9.10.

659. *cf.* 'If Sérusier had used the golden number in his paintings, sources suggest that this would only be for a limited time after his visits to Beuron'. *Si Sérusier a employé le nombre d'or dans ses peintures les sources suggèrent que ce ne fût que pour une période limitée, après ses visites à Beuron* (Herz-Fischler, (1997) p. 3).

660. The chronology of Verkade's movements is taken from Smitmans *et al.* (2007) p.11.

Verkade's picture *Paysanne de St Nolff*⁶⁶¹ confirms unequivocally that Verkade had himself already used GS proportioning by 1892, when he was still in France and a member of the Nabis there, and before he had made any contact with Beuron. With one exception⁶⁶² Verkade's remaining paintings using GS all belong to the early 1890s and are associated with his Nabi and not his Beuron years.⁶⁶³

Of the remaining Nabi artists using GS, Maurice Denis (1870 – 1943) employed GR format only between 1889 – 1895 (11 paintings) and DGR format between 1889 and 1899 (7 paintings), plus a further one from 1923.

The implication from the above observations is that GS had originally be taken up by Sérusier at the time of the formation of the Nabis in 1888, and in the following years he became intensely involved in developing GS techniques in his paintings. Only two of his colleagues, Verkade and Filiger, took up GS to any degree, and there is no sign that they, together with other users such as Denis or Vuillard, held any interest in the proportion after the mid-1890s. Questions apropos the ingress and chronology of GS in France will be raised again in chapters 10 and 11, but it is worthwhile summarizing here that Seurat was already making limited use of the proportion during the early 1880s, several years before he first met Charles Henry. From 1888 or 1889 there was a sudden upsurge of interest within the Nabi group in applying GS techniques to their works: in several cases, however, this interest was either limited and/or had waned before the end of the decade. There is no evidence that Jan Verkade was the first to bring ideas on GS to the Nabis at some time following his first contact with the Beuron Abbey (November 1893). Rather, it was Paul Sérusier who appears to have been the pioneer and promulgator of GS ideas among the Nabis, and his techniques employing GS were already well under way by 1888 – 89.

Delius and the Nabis. Perhaps the most significant parallel between Delius and early Sérusier is their shared practice of proportioning different sectors of music/painting by GS and with the various sectors so-treated already either overlapping or being superimposed upon one another. Sérusier may have begun as early as 1888 (*Ramasseur de Goémon* dated 1888 – 90),⁶⁶⁴ with the first fully datable example being *Le Pêcheur à la Laïta* (1890).⁶⁶⁵ A

661. Plate 9.13 (lower).

662. Plate 9.12 no 6.

663. *ibid.* nos 1 – 5.

664. Plate 9.8.

665. Plate 9.5.

further important comparison to be made is the near simultaneity with which Delius and Sérusier began an intense period of involvement with GS in France: for Delius this started from between *c.* May – June to *c.* Sept-ember 1888, for Sérusier this was possibly only a few months later, after the formation of the Nabis, post October 1888. Both men were to employ GS techniques for much of their working lives.

* * * * *

At the time of Delius' arrival in Paris c. 6th May 1888, Claude Debussy (1862 – 1917) was also living there, having returned, somewhat prematurely, a year earlier from his sojourn in Italy under a *Grand Prix de Rome* scholarship. According to François Lesure, the years 1887 – 1889 are the least well documented of Debussy's career,⁶⁶⁶ but it is known that he had returned to Paris on 2nd March 1887,⁶⁶⁷ initially to live with his parents in the rue Clapeyron, the family moving, by January 1888, to the rue de Berlin. On 8th January 1888, Debussy became a member of the *Société nationale de Musique*, and, although his musical output during 1888 was rather meagre, it included the completion, of his final *Prix de Rome* offering, *La Damselle élue*, a setting of Dante Gabriel Rossetti's poem *The Blesséd Damozel*.

In August 1888, Debussy was in Bayreuth while Delius himself, sometime between late June and late July, had already left Paris for Brittany, only returning to Paris in late October. This would have left only the short period from early May to late June or July, some seven to eleven weeks or so, for Delius to have contacted any proponents of Golden Section and proportioning theory in Paris (including Debussy), to have learned their techniques, and to have adapted these in composing the 1888 setting of *Paa Vidderne* whilst holidaying in Brittany.

Although by the early to mid- 1890s Delius was known to have had friendly relationships with, for example, Maurice Ravel and Florent Schmitt, as well as with Paul Gauguin and members of his circle, there is a singular lack of any mention of Delius in the writings of the French artistic and music communities of the late 1880s. In the absence of solid evidence for Delius' contact with any advocate of GS during the initial weeks after his arrival in Paris, an alternative approach is adopted here of examining any similarities between Delius' proportioning techniques and those of Debussy, the latter being the best known and probably the earliest user of GS proportioning in late 19th century musical Paris.⁶⁶⁸ This approach will help to clarify, for example, Delius' reliance, either directly or otherwise, on Debussy for his ideas, and more especially, help to establish any common or shared source

666. Lesure (1993) p. 79.

667. The remaining information on Debussy's movements between 1887 – 1888 is taken from *Centre de documentation Claude Debussy* www.debussy.fr – accessed on 14th March 2015.

668. For Debussy's use of GS see Howat (1983a), for Erik Satie's use see Adams, 1996, and for Ravel's use in *Miroirs: Oiseaux Tristes* see Howat (1983a) pp 189 – 192.

for the two composers' strategies of proportioning. The works of Debussy examined are:

Première Suite d'Orchestre L 50 ⁶⁶⁹ – (1883).
Ariettes oubliées L 60 – (1885 – ?1888).
Printemps – Suite Symphonique pour Orchestre, Piano et Chœurs L 68 (Feb. 1887).
La Damoiselle élue L 69 (1887 – 88).
Cinq Poèmes de Charles Baudelaire L 70 (1887 – 1889).
Petite Suite – Pour piano à 4 mains L 71 (1888 – 1889).
Fantaisie pour Piano et Orchestre L 72 (Oct. 1888 – Apr. 1890).
Suite Bergamasque L 82 – (1890, revised 1905).
Proses lyriques L 90 – (1892–1893).
Trois Mélodies – Poésie de Paul Verlaine L. 85 (1891).
Fêtes Galantes I° recueil L 86 – (1891 – 1892).
Prélude à l'après-midi d'un faune – L 87 (1891 – Sept. 1894).

To obtain a clearer view of any GS proportioning carried out by Debussy which *encompassed* either an entire work or more than a single movement, three later works were subsequently added to this list:⁶⁷⁰

Nocturnes – Triptyque symphonique pour Orchestre et Chœurs L 98 – (Dec. 1897 – Dec. 1899).
Images (1re série) – L 105 – (1901 – 1905).
La Mer – L 111 – Aug. 1903 – 5 March 1905.

Although the early *Première Suite d'Orchestre* (1883) displays a plausible overall GS division dividing the work into an S: L proportion (Movt. I: Movts II – IV),⁶⁷¹ in the absence of any further proportioning, it is not possible to decide whether the division had been applied consciously or not.⁶⁷²

Symmetrical GS patterns. A more definite case of a GS proportion spanning several movements occurs in the *Petite Suite* (1888 – 1889),⁶⁷³ which is structured using two overlapping *symmetrical GS patterns*,⁶⁷⁴ the two main GS points of the first coinciding with first and last bar lines of the *Menuet* thus positioning it centrally within the *Suite*.

Noteworthy also is Debussy's omission in his scheme of the opening 30 bars of the first

669. Revised catalogue numbers are from Lesure 2003.

670. A different and complementary approach to analysis from that used in Roy Howat's *Debussy in Proportion* has been adopted in the present chapter, and where, rather than examining individual movements separately, an initial entry from the apex of any potential Delian 'top down hierarchy' has tended to uncover evidence of some newly-observed large scale designs in Debussy.

671. i.e. 306: 498 bars = GS \pm 1.10 bars; 0.619403 = φ + 0.001370.

672. Delius' earliest use of a primary GS divisions spanning an entire movement or complete work occur in his *Florida Suite* Movt III *Sunset* (Leipzig c. 1887, revised Paris 1889) and in *Paa Vidderne* (Summer/Autumn 1888), where in the latter case, a GS division spans the work in an L: S proportion (for the *Florida Suite* see Chapter 3 text and Figure 3.3.4; for *Paa Vidderne* see Chapter 2 text and Figure 2.9.1 line 2).

673. Figure 10.2.

674. For details of the symmetrical GS pattern see Chapter 2 text and Figure 2.2 line 1a. Early examples in Delius include the *Florida Suite* Figure 3.3.1 line 2.

movement of the work (*En bateau*),⁶⁷⁵ together with his partial superimposition of the two GS patterns,⁶⁷⁶ his GS linking of I with II and III with IV (33: 22 and 29: 47 bars respectively) together with the use of Lucas numbers (29: 47)⁶⁷⁷ – all also characteristics of Delius' early works. The few remaining symmetrical GS patterns located in the above Debussy works span individual movements only.⁶⁷⁸

GS partitioning. Among the works surveyed, this was the most significant and frequent technique of large-scale proportioning used by Debussy. GS partitioning involves firstly, dividing a work (or movement) into two or three partitions or segments which are normally both continuous with one another and not generally in any GS or other simple proportional relationship. Secondly, there is a subdivision of each segment, frequently by a single (sometimes multiple) GS division, but occasionally with some alternative GS proportion or patterning. Points of articulation between successive segments are generally at some significant musical or dramatic point of the work in question.

GS partitioning patterns can be represented in a similar manner to GS patterns, *viz.* a work or movement with three partitions each subdivided by GS might be denoted

131: 210 || 221: 136 || 320: 200 units, the colon signifying a GS proportional relationship between the units of each pair. Those works showing this type of proportioning included all in the above list except the *Première Suite d'Orchestre*, the *Petite Suite*, *Prélude à l'Après-midi d'un Faune* and the *Suite Bergamasque*. Brief details include:

Printemps is the earliest instance of Debussy's use of GS partitioning to be found, and being written (or completed) in February 1887, would suggest a *terminus ante quem* for Debussy's use of GS. The proportioning was carried out on *crotchet units* rather than on bars.⁶⁷⁹

Ariettes oubliées constitute the simplest case of GS partitioning found: the first four songs comprise Segment I, the GS point being at the juncture of Song III with Song IV; Segment 2 comprises the final two songs with the GS point lying (approximately) at their

675. cf. Delius' *Florida Suite*, where, as in Debussy's *Petite Suite*, some opening bars of the work are also excluded from the pattern (Figure 3.3.1 line 2).

676. With Delius, schemes of superimposed and overlapping GS (and 2: 1) patterns occur initially in 1887 *Florida Suite* (Figures 3.3.2, 3.3.3 and 3.3.5) 1888, *Paa Vidderne* (Figures 2.9.1, 2.9.7a and 2.9.8). However, rather than GS symmetrical patterns, Delius tends to use superimposed tripartite or quadripartite GS patterns in his designs.

677. Lucas series and Lucas numbers are used by Delius in *Paa Vidderne*, Movts IV and IX. (Figures 2.8.5 and 2.8.7b).

678. For example, *Clair de Lune* Movt. III of *Fêtes Galantes* (Figure 10.7). A similar pattern, possibly fortuitous, occurs in *Ariettes oubliées* VI – *Spleen* (Figure 10.4).

679. Figure 10.1.

juncture.⁶⁸⁰

La Damoiselle élue,⁶⁸¹ a single movement work, shows a similar three-segment structure to *Printemps*, with the partitioning in *La Damoiselle* following the tripartite dramatic structure of the poem. The GS linking between the opening instrumental prelude and the following *chœur et récitante* section up to the first entry of the *Damoiselle* herself is noteworthy, since the interlinking by GS of an instrumental introduction with the ensuing main body of music is also typical of earlier and mature Delius. The serial Type I subdivision of segment III is in strict Fibonacci sequence and is a one of only two or three instances among the works examined of Debussy favouring any extended sequential Type I GS sub-division.

The *Fantaisie pour Piano et Orchestre*,⁶⁸² and the *Nocturnes*,⁶⁸³ both show similar approaches in their overall proportioning to the preceding, but with each having only two segments. Thus, in the *Nocturnes*, the GS point of the first sector marks the beginning of the central section of *Fêtes*, whilst the GS point of the second is at the first climax of *Sirènes*. Also, each movement of the *Nocturnes* is individually subdivided by GS, the GS point of *Fêtes* marking the point of articulation of the two main sectors (*i.e.* at the return of the opening music of *Fêtes* immediately after the central section – bar line 276). A notable characteristic also is that Debussy restricts himself throughout the *Nocturnes* to long: short proportions, with short: long subdivision by GS being avoided.

In the *Proses lyriques*⁶⁸⁴ proportioning is again at crotchet level, segment I spans songs I – III, with segment II comprising only song IV. Song III, *de Fleurs*, mirrors this overall design in being composed of two segments, the longer preceding the shorter, the point of their juncture being at bar line 218 (on *vitres* at *Brisez les vitres de maléfice* – “Smash the panes of this evil spell”).⁶⁸⁵

The *Fêtes Galantes* show no overall subsuming partitions. However, Songs I and II are individually partitioned into two segments each with a single GS subdivision.⁶⁸⁶

The *Cinq Poèmes de Charles Baudelaire*⁶⁸⁷ present further evidence of Debussy superimposing different proportional systems. Thus, three segments comprising a GS

680. Figure 10.4.

681. Figure 10.3.

682. Figure 10.6.

683. Figure 10.10.

684. Figure 10.9.

685. Figure 10.9 number 5.

686. Figure 10.7.

687. Figure 10.5.

partitioning system based on bars and spanning the entire work – 158||178||79 bars (becoming 61: 97||67: 111||49: 30) – and three sections of a tripartite GS pattern ABA' also spanning the complete work in bars, 131||73||: 211, are superimposed. The A and A' sections of the ABA' pattern remain undivided, but if the S: L subdivision in *Harmonie du Soir* is accepted, then the tripartite pattern would become a quadripartite CGSP 131||27: 46||: 211 bars – one of three such cases potentially occurring in these earlier compositions.⁶⁸⁸

The *Trois Mélodies* of 1891 are an exception in that the three segments of the GS partitioning also form an ABA' pattern of 40||50||25 bars. Also, the three songs are the second work to show, (assuming the GS point at bar line 72 is accepted as such), a CGSP formation of 40||31: 19||: 25. bars. Thirdly, the first song *La Mer est plus belle*, forms another tripartite pattern 18||11||:11 and so 'reflects' in miniature the overall proportional structure of the complete work, a similar feature already being noted in the *Proses lyriques* above.

Prélude à l'après-midi d'un faune is the third work in the form of a GGSP, with here both main GS points being exploited in the central section, so that the design is at once both switched and unswitched. The three climaxes are individually shaped as GS ascent structures which are continuous with one another, the third also standing at the L: S GS point both of the central section, and of the entire work. Type I GS subdivision, based on the triple Fibonacci series, is employed in the B section. *L'après-midi d'un faune* is also the first instance of a work in which different proportioning strategies occur at both the crotchet and bar levels.⁶⁸⁹

The *Images (1re série)* of 1901 – 1905,⁶⁹⁰ present the second instance of 'two-level' proportioning at both crotchet and at bar level. The GS partitioning, (in crotchets), results in two segments, each being divided by GS, respectively at the β and δ climactic points, viz. 323.5: 196||179: 295 crotchets, the δ point being the first entry of the main theme of *Mouvement*. The axis in bars shows GS linkages between successive climactic points over the three movements as well as in the proportioning of Movt. I – *Reflets dans l'eau*.⁶⁹¹ Being constructed of two GS segments, (55 and 39 bars becoming 34: 21||15: 24 bars), *Reflets dans*

688. As with other Debussy works comprising several movements each composed at different times, it is the date of the most recent movement which has been taken as the date of any overall proportioning scheme viz. for the *Cinq Poèmes* this would be March 1889 (the date of *Le Jet d'eau*) or possibly even later (*Recueillement* was composed during 1889, but the exact date is unknown).

689. Figure 10.8.

690. Figure 10.11.

691. Being throughout in a time signature of 4/8 in all but a single bar, the proportioning of *Reflets dans l'eau* would be the same either at crotchet or at bar level.

l'eau appropriately 'reflects' the overall structure of the entire work. The juncture of its two proportionally unrelated segments occurs at bar line 56 (at the E flat major key signature), with initial GS subdivisions respectively at bar line 35, *au Mouvt*, and at bar line 71, *1° Tempo*. A second pattern, a tripartite GS configuration ABA' 15||55||: 24 bars, is also present, the A and A' sections at the same time being 'musically matched' *i.e.* patterning musically as *XYX*'. *La Mer* adopts a similar approach to several of the earlier works described above. Firstly, it is partitioned into two sectors (of 265 and 364 bars respectively) the *Introduction* to Movt I and the *Coda* to Movt III are omitted from the scheme, so giving a total of 629 bars. Each sector is then subdivided once by GS. At crotchet level, the same 629 bars (= 2109 crotchets) are subdivided by L: S GS proportion, the GS point being at the beginning of the exposition of Movt III (bar line 458 (56)). As with previous works, Movt. I 'reflects' the overall partitioning of the work in that it consists of two partitions (237 and 261 crotchets) each with one GS subdivision. A further interesting point concerning *La Mer* is that Movt. III follows a perfect 'switched' GS pattern of 55||77: 125||: 35 bars the GS point of the inner pair occurring at bar line 535 (133).⁶⁹²

During the Spring of 1905 the *Suite Bergamasque*, originally composed by about 1890, underwent substantial revision.⁶⁹³ Changes included a minor cut in the *Prélude* and substantial cuts to the *Menuet*.⁶⁹⁴ Taking these alterations into consideration, the work is here regarded, proportionally speaking, as a 1905 piece, rather than as belonging to the 1880s or 90s.⁶⁹⁵ A significant overall proportioning feature used in the *Suite* is a *redistribution cycle* viz. an initial GS division of the total 421 bars, is followed by an irregular subdivision of each of the two GS products and their redistribution or rearrangement thus: 421 bars → 161: 260 → (89 + 72): (104 + 156) → Movement I: 89, II: 104, III: 72 and IV: 156 bars. This proportioning feature in the *Suite Bergamasque* must have dated from 1905, and would have been, at least in part, the reason for adjusting the bar numbers in the *Menuet*. Another feature which spans more than a single movement is the linking by GS of successive climactic points or climaxes. The GS proportions are here so precise that (and bearing in mind that Delius also used this same technique), it is difficult to dismiss them as unconsciously achieved artefacts. Other notable aspects of the score, although confined to individual movements, include the GS

692. Figure 10.12.

693. Debussy & Howat (2000) *Foreword* p. xix, pp xxii – xxiii.

694. *ibid.* p. 140 and Plates 5 – 7 (pp 149 – 151).

695. Figure 10.13.

partitioning of *Clair de Lune* into two equal segments of 36 bars, whose juncture occurs at the E major key signature (bar line 37/230), and with GS subdivisions at the *Tempo rubato* (bar line 15/ 208) and the movement's reprise (bar line 51/244) – *i.e.* 36||36 bars becoming 14: 22||14: 22 bars. The opening and closing X and X' sections of *Clair de Lune* are in a GS proportion of 14: 22 bars, so that the movement approaches a Delian quadripartite GS pattern.⁶⁹⁶

A comparison of the main features and strategies of proportioning used by Delius and Debussy is given in Table 10.1. For reasons discussed below, Delius' knowledge and use of GS is taken as 1887, during his last complete year at the Leipzig Conservatoire, and the dates of composition of those Delius works which are compared with Debussy's run only to 1890, while the dates of the Debussy works studied run, on the other hand and as discussed below, over the much longer period of 1883 – 1905. Several conclusions may be drawn from the survey:

Firstly, Delius concentrated much of his effort in developing his proportioning strategies between the years 1887/88 and 1890, applying these comprehensively to his orchestral song cycle *Maud* (c. 1891) and to his first opera *Irmelin* (c. 1890 – 92). Part of this sense of urgency may have arisen from his (at that time) immersion in alchemical lore and his plan to use the Golden Section as a symbol of the Philosopher's Gold in *Irmelin*. Subsequent to the completion of *Irmelin* however, Delius largely eschewed GS for several years, only returning to it with the *Mitternachtslied Zarathustras* (1898) and *Paris* (1899).⁶⁹⁷ Debussy, in contrast to Delius, incorporated GS strategies into his works at a much slower pace, and although his use of GS partitioning in *Printemps* pre-dates by over a year Delius' arrival in Paris (in the Spring of 1888), in the majority of other cases, Delius' initial use of any particular proportioning technique can claim precedence in time over Debussy's, sometimes by a substantial period of years.

Secondly, it will be useful in this respect to postulate two periods or phases of activity and experimentation in GS proportioning amongst artists and musicians in late nineteenth century France. The first period began c. 1877 – 79 with Georges Seurat's use of the double golden rectangle,⁶⁹⁸ the single golden rectangle ⁶⁹⁹ and his division by GS in his artworks

696. *i.e.* 14||22: 14||: 22 bars, a switched CGSP. However, the *Tempo rubato* section would have to be included in that case in the central 'B' section of the pattern, a position where it sits perhaps rather uncomfortably.

697. Delius also uses GS proportioning in his *Deux Mélodies* (Verlaine) of 1895.

698. *c.f.* *Tête de jeune Fille* 1877 – 79 – see Chapter 9 Plate 9.1 no. 1.

along their vertical or horizontal borders,⁷⁰⁰ sometimes producing a GS symmetrical pattern.⁷⁰¹ Several artists who came after Seurat restricted their use of GS to these few basic techniques. Debussy's use of GS partitioning is essentially similar to Seurat's division of vertical or horizontal borders, and his employment of the symmetrical GS pattern postdates Seurat by some 3 – 4 years, so that Debussy's first applications of GS essentially belong to this first phase of GS activity. The second period, which began during the second half of 1888, is characterized by a generally greater complexity in GS design, and in artworks, the overlapping of separate GS elements and the different GS subdivisions spanning different sectors on either vertical side of a painting. A significant development, also in artworks of this second phase, was the incorporation of ascending or descending lines or curves in a painting, and which had originally arisen from a GS point located along either of the vertical edges of the picture.

In musical composition, the general trend was similar, with GS patterns and divisions being overlain or overlapping one another, the GS patterns themselves having been first introduced during this second phase. Another important introduction was the *ascent formation* which was developed during 1888 – 1889, as well as Type I GS multiple subdivision, and the use of the Fibonacci and Lucas series and their multiples.

It will be seen, both from previous chapters and the above, that two of the leading figures of this second phase of GS experimentation were Paul Sérusier, one of the most prominent figures of the Nabis group of painters, and Delius himself, who should be regarded as a prime innovator in the field of music.

A third aspect of Delius' early experiments in proportioning refers to those individual elements developed by him from 1887/1888 but relatively infrequently, if ever, taken up by Debussy. These include a sense of hierarchical descent and return the descent involving an initial 1: 1 or 2: 1 division followed by copious subdivisions by GS, and the creation of various overlapping GS patterns. In some cases, this process can be carried out to varying degrees simultaneously both in units of bars and in crotchets. A significant outcome of Delius' use of patterns also is that they confer a sense of 'correspondence' – remote sections of a work being 'reflected' in one another through their GS inter-relationships, whilst at the same time, patterns lower in a hierarchy 'reflect' those above. Any attempt to understand

699. *c.f. Le cheval noir* c. 1883 – see Chapter 9 Plate 9.1 no. 5.

700. *c.f. L'arbre* c.1881; *Le phare de Honfleur* 1886 see Chapter 9 Plate 9.1 nos 2 & 7.

701. *c.f. Bateaux marée basse, Grandcamp* 1885 and *La Parade de Cirque* 1888 see Chapter 9 Plate 9.1 nos 6 & 9.

'form' in Delius, therefore would involve an awareness of these ongoing and underlying processes of an 'organic', proliferation and multiplicity, which are often concealed (or camouflaged) under a relatively static or uneventful 'surface' texture in Delius' early works.

To elaborate further on the topic of form in Delius, it will be necessary to turn the attention momentarily away from Paris and France and towards Germany, especially to Leipzig, and to some of the original thinkers on proportion and on the aesthetics of the Golden Section who worked in mid- and late 19th-century Germany. These included the two main figures, Adolf Zeising (1810 – 1876), and Gustav Theodor Fechner (1801 – 1887). Zeising lived briefly in Leipzig where, from c. early 1853, 'he began an amazing period of research and publication'⁷⁰² writing there two seminal works on golden section aesthetics, *Neue Lehre von den Proportionen des menschlichen Körpers* . . .⁷⁰³ followed by *Aesthetische Forschungen*⁷⁰⁴ Similarly, from 1818 onwards, Fechner had also lived in Leipzig, where he died (during Delius' time in Leipzig) in November 1887. He held professorships at the Leipzig University philosophy faculty in physics, between 1831 – 1843, and in *Naturphilosophie* from 1846 – 1875. His works covering the Golden Section included *Ueber die Frage des goldenen Schnittes*,⁷⁰⁵ and *Vorschule der Aesthetik*.⁷⁰⁶ Two other important figures, both at Leipzig University while Delius was at the Conservatoire were Conrad Hermann (1819 – July 1897) and Rudolf Seydel (1835 – 1892). Hermann remained at the University from 1849 until he died, as did Rudolf Seydel who was at the University from 1867– 1892. Both men held professorships in the philosophy faculty at the University, and both published papers on the Golden Section.⁷⁰⁷ In connection with Delius' prior knowledge of, and interest in, GS before he moved to Paris, it is important firstly to recognize the immediate proximity of the Leipzig Conservatoire to the University during Delius' candidacy at the former, and secondly to mention briefly the prevailing ideas, the 'ethos' of those researchers and savants involved in the aesthetics of the golden section, and especially how these may have influenced Delius' own beliefs and

702. Herz-Fischler (2004) p. 18.

703. The full German title is given in the references and reads: 'A new theory on the proportions of the human body [which] develops a previously unrecognised fundamental morphological law, permeating the whole of nature and art, together with a complete history of previous systems.'

704. *i.e.* 'Aesthetic Investigations.'

705. *i.e.* 'On the question of the Golden Section.'

706. Literally 'Pre-school of aesthetic(s)'.

707. See Seydel 1867 & 1869 and Hermann 1871. Hermann continued to write on the Golden Section after Delius had left Leipzig for Paris – (see, for example Hermann 1895).

techniques. Firstly, Delius settled in Leipzig in August 1886, where his address was for a short time at no. 8, Marschner Straße and then at 5, Harkort Straße. At that time, the Leipzig Conservatoire was situated in the Gewandgäßchen/Universität Straße, literally a minute's walk from the University, and about 11 minutes away from the Harkort Straße.⁷⁰⁸ Although any such links pertaining to Delius in Leipzig do not appear to have been researched,⁷⁰⁹ it seems very likely that there were close social and professional ties between staff members of the University and the Conservatoire, and similarly between the students of the two institutions. In addition, it seems probable that Delius would have sought out gatherings of creative minds in Leipzig, and to befriend certain individuals within such communities, as he was wont to do later in Paris. A further initial stimulus to Delius regarding his interest in the Golden Section may have been the publication during his time in Leipzig of additional books on this subject, for example those of Pfeifer⁷¹⁰ and Matthias,⁷¹¹ whilst similarly, the number of books published from the mid-1870s to mid-1890s indicate an ongoing general interest in the topic in Leipzig and in Germany as a whole over that period.⁷¹²

Regarding the intellectual background and philosophical *milieu* of the most prominent thinkers in Golden Section research in 19th century Germany, the most pervasive influence was that of *Naturphilosophie*, which flourished initially during the first half of the century, under the aegis of intellectuals such as Friedrich Schelling (1775 – 1854), Lorenz Oken (1779 – 1851) and Johann Wolfgang von Goethe (1749 – 1832). Later proponents included Fechner and Ernst Haeckel (1834 – 1919). The basic tenets of *Naturphilosophie* arose through a critique (largely by Schelling over the period 1797 – 1799), of some of Kant's and Fichte's philosophical propositions. The axiomatic stance of the *Naturphilosophen* was the belief that nature in itself constituted a dynamic and organic force which was 'alive', a concept starkly opposing the prevailing scientific view that nature was merely an artifice, a mechanism arising fortuitously through combining atoms *etc.* Secondly, nature and the (human) mind originally arose together as a single entity, thus there was a unity between nature and

708. On December 5th, 1887, new premises for the Conservatoire located at Grassistraße 8 to the south-west of the city centre were inaugurated, thus Delius, who departed Leipzig 11 April 1888, would have attended mostly (if not exclusively) the old Universität Straße site.

709. Jones (1889) does not mention Delius as having any friendships or social ties outside of the Conservatoire during his stay in Leipzig

710. See Pfeifer 1885 — ['The golden section as it appears in mathematics, nature and art'].

711. See Matthias 1886 — ['Rules for the Golden Section in the applied arts/ arts and crafts — a handbook for the workplace, school and the home'].

712. For example, see: Wittstein, T. (1874), Lutz, M. (1880), Sonnenburg, L. (1881), Zeising, Adolf (1884), Pfeifer, Xavier (1885), Matthias (1886), Butler, K. (1889), Kalbe, O. (1889), Paccioli, Luca (translated 1889), and Goeringer, A. (1893).

consciousness which enables us to 'infer nature's laws from the laws of the mind and vice versa'⁷¹³ Thirdly there was a 'unity of nature and its forces, and thereby also of science'. Thus also 'the *inorganic* world must be conceived as the product of an inherent organic natural process'.⁷¹⁴ The fourth point which should be mentioned is that *Naturphilosophie*, which had arisen largely from German idealistic philosophy, proposed a monistic world view, upholding, in particular a doctrine originating from the monist philosopher Baruch Spinoza (1632 – 1677), the *dual aspect theory*, which held that the material and the immaterial (spirit) were in reality two aspects of the same single entity.⁷¹⁵

Herz-Fischler (2004) has discussed briefly the impact of *Naturphilosophie* on Adolf Zeising,⁷¹⁶ who was in turn one of the most influential figures affecting Delius' outlook on proportioning.⁷¹⁷ Concerning Zeising's indebtedness to *Naturphilosophie*, Herz-Fischler points to the quotations which open Zeising's *Neue Lehre* of 1854, that by Alexander von Humboldt⁷¹⁸ in particular encapsulating both the outlook of the *Naturphilosophen* and of Zeising himself.⁷¹⁹ It is this sense of "recognition of unity in variety" and of "measuring and discovering proportions" which dominates both Zeising's aesthetics in *Neue Lehre* and Delius' approach to form. In comparing Zeising and Delius further, it is worth quoting, again from Zeising, a passage pertaining to the plastic arts but also strongly evoking Delius' urge towards a downward hierarchical movement. The passage occurs immediately prior to Zeising's introducing the Golden Section as constituting the main vehicle of descent:

... it lies in the essential nature of proportional figures, that in their formation there is always a step-by-step progression from the unity of the whole to a multiplicity of parts, so that the whole firstly divides into two main parts, then from these, further division continues until there can be no further reduction. So there develops out of this essential nature of proportion simultaneously a sense of progression, growth and of organic life, together with a proportional form which imparts throughout the impression of a well-ordered and well-structured whole but in which the possibility remains of developing still freer forms of beauty without any fear of destroying the

713. Heidelberg 1998 p. 739.

714. *ibid.* p. 739.

715. See Jacobsen E. P. pp 54 – 59 *Monism in Romantic "Naturphilosophie"*

716. Herz-Fischler 2004 pp 52 – 53.

717. For further and earlier influences on Delius' proportioning see Chapter 11.

718. Alexander von Humboldt (1769 – 1859) was a close friend and admirer of Schelling: see R. J. Richards p. 129, 134, 134n. & 139.

719. Herz-Fischler (*ibid.* p. 52) translates the passage as follows: 'When contemplated, nature is a unity in variety, a combination of variety in form and mixture, embodiment of the objects of nature and natural forces as a living whole. The most important result of perceptive physical search is therefore the following: to recognize unity in variety.//Measuring and discovering proportions, most careful observation of the particular, prepares for the higher knowledge of the entire nature and laws of the world.// Man cannot influence nature, cannot acquire any of its forces if he does not know the laws of nature with its proportions.'

At the point he first introduces the Golden Section into his discussion, Zeising further elaborates his views on form and proportion:

In order now to discover such a principle, we must examine closely the notion of proportionality established above. Thus, proportionality is that stage of formal beauty where the opposites of oneness and infinity, or of uniformity and diversity merge into a harmony. That which originally may be experienced as a single whole, as soon as it begins to divide into unequal parts should give such a proportion, that the inequality between the whole and its parts on the one hand and between the two parts on the other will be balanced. Based on this principle, an adequate law of proportion must now be adumbrated:

If the division of a whole into two unequal proportioned parts is to be envisioned, then the proportion of unequal parts to one another must be the same as the proportion of the parts to the whole.⁷²¹

Regarding Delius' use of other (non-GS) proportions and in particular 2: 1 divisions at upper levels in his hierarchies, Zeising does not appear to have attached any significance to the 2: 1 proportion, seeming to reject its appropriateness:

These merits arise from the perfection of the underlying proportion. This proportion [the golden section] generates the most satisfactory mediation between a complete uniformity, and a total diversity of parts and forms therefore a natural bridge between unity, duality and multiplicity. It has already been shown [...] that an equal division of a whole gives parts [in a ratio] of 1: 1 to each other, (and thereby to the whole a proportion of $\frac{1}{2}$: 1 or 1: 2), so with an equal division there is a disparity between the size of the whole and its parts. If the whole is instead divided into unequal parts using the next simplest proportion of 2: 3 or 1: $\frac{1}{2}$, so that the two parts are $\frac{1}{3}$ [0.33R] and $\frac{2}{3}$ [0.66 R] respectively, then the disparity between the whole and its parts is in a sense avoided by reducing the 'gap' in size

720. Zeising: *Neue Lehre von dem Proportionen des menschlichen Körpers* pp 154 – 155. The above translation has been partly paraphrased. The original reads:

hier nur noch die kurze Andeutung, dass es im Wesen der proportionalen Figuren liegt, dass bei ihrer Gliederung stets ein Stufengang von der Einheit des Ganzen zur Vielheit der Theile Statt findet, dass sich also das Ganze zunächst stets nur in zwei Haupttheile theilt, dann mit diesen wieder die Theilung vornimmt und hiermit so lange fortfährt bis die Anschauung nicht mehr in Stande ist, die Vielheit sogleich auf eine endliche Zahl zu reduciren. [. . .] So entwickelt sich aus dem Wesehebung der Proportion zugleich der Charakter der Progression und mit ihm der Charakter des Wachstums und des organischen Lebens, und die proportionale Erscheinung macht also durchweg den Eindruck eines ebenso wohlgeordneten als wohlgegliederten Ganzen, welches die Fähigkeit besitzt, sich zu einer noch freieren Form der Schönheit zu entwickeln, ohne dass dabei eine Zerstörung der zum Grunde liegenden Gesetzmässigkeit zu befürchten wäre.

721. Zeising: *Neue Lehre von dem Proportionen des menschlichen Körpers* p.158: *Um nun ein solches Gesetz finden, müssen wir es auf das Engste an den oben aufgestellten Begriff der Proportionalität anschliessen. Nach diesem aber ist die Proportionalität diejenige Stufe der formellen Schönheit, welche den Gegensatz von Einheit und Unendlichkeit, von Gleichheit und Verschiedenheit dadurch zur Harmonie aufhebt, dass sie das ursprünglich als Einheit zu denkende Ganze, mit der Zweitheilung beginnend, in ungleiche Theile theilt, diesen Theilen aber ein solches Maass giebt, dass die Ungleichheit der Theile durch eine Gleichheit der Verhältnisse zwischen dem Ganzen und seinen Theilen einerseits und zwischen den beiden Theilen andreseits ausgeglichen wird. Ein diesem Begriff entsprechendes Proportional-gesetz wird also lauten müssen:*

Wenn die Eintheilung oder Gliederung eines Ganzen in ungleiche Theile als proportional erscheinen soll: so muss das Verhältniss der ungleichen Theile zu einander dasselbe sein, wie das Verhältniss der Theile zum Ganze

between the whole and the larger of its two parts, however there is now a disparity between the size of the two divisions, the larger to the smaller being in a proportion of 2: 1, so that while the larger to smaller division is again 2: 1 the whole to the larger division is now only $\times 1\frac{1}{2}$ [or 3: 2].⁷²²

However, Conrad Hermann, in contrast to Zeising, regards the 2: 1 proportion as 'the expression of the absolute and complete harmony of pure proportion' and, (since the 2: 1 proportion belongs only in an immanent ideal mathematical reality, whilst GS manifests itself also in an everyday physical reality) he (seemingly) sees it lying 'beyond' and 'above' the Golden Section in metaphysical or philosophical import:

It is just here that the proportion 2: 3 [i.e. 2 in 3 or $\frac{2}{3} = 0.66$] manifests itself as the expression of the absolute and complete harmony of pure proportion lying midway between unity and the twofold (i.e. between a 2: 2 and 2: 4) proportion. But the golden section, which is approximately 13: 21, almost reaches this simple proportion. Here we must distinguish between an abstract and concrete conception of the word "proportion." The abstract proportion 2: 3 [$2 \text{ in } 3 = 0.66$] stands in an immediate proximity to the Golden Section or at least lies in the same close neighbourhood as the latter. The law of the Golden Section informs us that this immanent order of reality is also a mathematical [reality] and that at the same time is different from the arithmetic order of our own subjective mechanical reality.⁷²³

Lastly, Rudolf Seydel,⁷²⁴ writing to Zeising in 1867, and in contrast to the above passage of

722. Zeising: *Neue Lehre von dem Proportionen des menschlichen Körpers* p. 163 – 164: *Diese Vorzüge gehen natürlich sämtlich aus der Vollkommenheit des ihr zum Grunde liegenden Verhältnisses hervor. Dieses Verhältniss bildet nämlich die befriedigendste harmonische Vermittlung zwischen der völligen Gleichheit und einer allzu grossen Verschiedenheit der Theile, und stellt dadurch den natürlichsten Uebergang von der Einheit zur Zweiheit und Mehrheit her. Schon S. 152 gezeigt, dass sich bei der völligen Gleichtheilung eines Ganzen die Theile zu einander wie 1: 1, zum Ganzen aber wie*

$\frac{1}{2}$: 1 oder wie 1: 2 verhalten, dass also mit der Gleichtheilung nothwendig ein Missverhältniss zwischen der Grösse des Ganzen und der Grösse seiner Theile verbunden ist, Theilt man hingegen ein Ganzes in ungleiche Theile und legt dabei das nächst-einfache Zahlenverhältniss (2: 3 oder 1: $1\frac{1}{2}$) zum Grunde, so dass der eine Theil = $\frac{1}{3}$, der andere = $\frac{2}{3}$ ist, so ist zwar das Missverhältniss zwischen dem Ganzen und seinem Theilen und der unvermittelter Sprung von der Einheit in die Zweiheit hinein in gewissem Sinne vermieden, aber dafür tritt nun dasselbe Missverhältniss zwischen den beiden Theilen ein, indem sich der grössere zum kleineren wider wie 2: 1 verhält, ihn also gerade zweimal in sich fasst, während das Ganze den grössern nur anderthalbmahl [= $\times 1\frac{1}{2}$] enthält.

723. See Hermann 1871 pp 14 – 15: *Hiernach könnte zunächst wohl die Formel 2: 3 als die zwischen der doppelten Formel des Gleichen zum Gleichen und des Einfachen zum Zweifachen oder 2: 2 und 2: 4 in der Mitter liegende als der Ausdruck der absoluten und vollkommenen Harmonie des reinen Maasses erscheinen. Das Verhältniss des goldenen Schnittes aber, welches ungefähr das von 13: 21 ist, streift wenigstens nahe an dieses einfache Verhältniss an. Wir glauben hier den doppelten Begriff des Harmonischen oder ästhetisch Proportionirten im abstracten und im konkreten Sinne des Wortes, unterscheiden zu dürfen. Die abstracte Proportion 2: 3 steht der konkreten des goldenen Schnittes an un für sich am Nächsten oder sie bezeichnet zunächst wenigstens die Gegend, in welcher diese letztere liegt. Das Gesetz des goldenen Schnittes belehrt uns, dass immanente Ordnung des Wirklichen zwar auch eine mathematisch bestimmte, aber doch zugleich eine andere ist als die arithmetische Ordnung in unserem eigenen, dem subjectiv abstracten oder äusserlich mechanischen Sinne des Wortes.*

724. Rudolf Seydel, although writing various books on religious philosophy including Christianity and Buddhism, was clearly interested also in the viewpoints of the *Naturphilosophen* and of *Naturphilosophie* – see for example: Seydel 1861 "The advance of Metaphysics within the Ionian School of Hylozoism" [Seydel's doctoral dissertation; Hylozoism is the belief that the Universe is 'alive']. Seydel 1873 "A refutation of Materialism and of the Mechanistic World View – a Discourse" Seydel 1879 Rudolf Seydel, although writing various books on religious philosophy including Christianity and Buddhism, was clearly interested also in the viewpoints of the

Hermann, proposes to Zeising that the Golden Section mainly operates from a 'spiritual' immanent' level and emerges from there into an everyday reality:

I refer to page 66 of the paper already cited [and to the words] "The general morphological importance of the golden section proportion is based on [the fact] that it is the most complete mediation between equality and diversity, between [an] expressionless symmetry and [an] infinite expression, or between a stark proportion and unbounded freedom ". But the problem which I face in all this (and in whose solution, I take into account the golden section), is that up till now I have always struggled in vain, in that I believe on the one hand in the truth of a [phenomenon of] immediate pleasure, of an unmediated spontaneous aesthetic acceptance. On the other hand, the cherished belief, that all which is aesthetically pleasing is not simply experienced through observation of what is physically perceived, but [rather] through an Ideal, an Indiscernible which (through embodiment in the physical world) makes itself known. So, if I were to uphold these two [beliefs], then my task would be to show that the Golden Section [is] an ideal, spiritual proportion, which as soon as it succeeds in manifesting itself in a physical sense, is able to engender [and create] aesthetic beauty.⁷²⁵

Summarizing the above it can be seen firstly, that the 19th century absorption in the aesthetics of the golden section arose originally in Germany and within the broad context of German idealist philosophies, its main contributors being proponents of the monistic *Naturphilosophie*. Leipzig, especially Leipzig University, was a major centre of golden section ideas and thinking and was the city where the original pioneering works on golden section were written. Delius' proximity to Leipzig University would have placed him in good stead to learn about aesthetic proportioning and the golden section whilst he was still in Leipzig. Delius may have gleaned, for example, his ideas on a hierarchical descent of subdivisions involving GS from Zeising's *Neue Lehre* or later Zeising work, whilst his use of the 2: 1 division as a symbol of perfection, transcendence *etc.* may have originated with Rudolf

Naturphilosophen and of *Naturphilosophie* – see for example: Seydel 1861 "The advance of Metaphysics within the Ionian School of Hylozoism" [Seydel's doctoral dissertation; Hylozoism is the belief that the Universe is 'alive']. Seydel 1873 "A refutation of Materialism and of the Mechanistic World View – a Discourse" Seydel 1879 "Schellings *Nachtwachen*"

725. See Seydel 1867 p. 296: *Noch einmal der goldne Schnitt: Sendschreiben an Herrn Prof. Dr. Adolf Zeising: Ich beziehe mich nämlich a. a. O. S. 66 auf die Worte: "Die allgemeine morphologische Bedeutung des Verhältnisses vom goldenen Schnitte beruht darauf, dass es die vollkommenste Vermittelung der Maaßgleichheit und der Maaßverschiedenheit, der ausdruckslosen Symmetrie und des maaßlosen Ausdrucks, der starren Regelmäßigkeit und der ungebundenen Freiheit ist"* Das Problem aber, an dessen Lösung ich mich rücksichtlich des goldnen Schnitts bisher immer vergeblich abgemüht, entstand mir daraus, dass ich einerseits die Thatsache eines unmittelbaren Wohlgefallens, einer unmittelbaren ästhetischen Billigung, gegenüber jenem Proportionalverhältniss unbedingt zustehen musste, da sie durch die stärkste und sicherste Empfindung mit zum Erlebniss geworden ist, andererseits aber ebenso entschieden die Ueberzeugung hege, dass alles ästhetisch Gefallende dies nicht ist durch das bloße sinnlich Wahrnehmbare als solches, sondern immer nur durch ein Ideelles, Unsinnliches, welches in dem Sinnlichen seine Verkörperung, seine adäquate Erscheinung hat. Wollte ich Beides zugleich fest halten, so erwuchs mir die Aufgabe, zu zeigen, dass das Verhältniss des goldnen Schnitts ein ideelles, geistiges Normalverhältniss sei, welches seiner innern Eigenthümlichkeit nach, sobald es zur sinnlichen Erscheinung gelangt, nothwendig ästhetisches Gefallen erzeuge.

Returning to Delius' initial year or so in Paris, there remain one or two features of Delius' proportioning not immediately accountable to later 19th century German sources. These include firstly, the 'ascent' formation, and secondly Type II GS proportioning including the overlaying and overlapping of GS patterns. Regarding the ascent formation, one possible origin for this idea may have originated with the Dutch artist and art theorist Humbert de Superville⁷²⁷ who was the first to associate horizontal, ascending and descending lines in artworks with definite and contrasting moods. It was a probable misreading of de Superville by a second art theoretician, Charles Blanc⁷²⁸ which lead to Charles Henry, in a well-known tract of 1885⁷²⁹ positing that ascending lines were associated with pleasure, whilst descending lines were associated with sadness, and that movement from left to right was more pleasurable than movement in the opposite direction. These ideas point partway to the Delian ascent formation; however, in the latter, the ascent and descent are generally associated more with an accumulation and dissipation of dynamic and energy, with the point of maximum energy, the GS point, also acting as a release point.⁷³⁰ Another parallel between the Delian ascent formation and contemporary painting techniques may be found in Paul Sérusier, where a GS point along the border of an artwork may separate two distinct colours e.g. in *Trois Bretonnes marchant sur la Grève*, (black and orange), *Le Ramasseur de Goémon* (crème-yellow and green) and *Jeune Fille au bord du Lac* (orange-brown and slate blue).⁷³¹ Here it would be useful to correlate the changes of colour either side of a GS point with any perceived 'moods' associated with the various colours as may have been established by Sérusier and his contemporary artists. Delius' change of thematic material immediately following the GS point⁷³² of an ascent configuration also offers another parallel with this technique in Sérusier.

No description or reference to Type II GS proportioning, has been traced in the literature on

726. See also Chapter 11 for Mendelssohn's use of the 2: 1 proportion.

727. David Pierre Giotto Humbert de Superville (1770 – 1849). He took the name 'de Superville' from a French grandmother, his father being Swiss-born. For Humbert's ideas on the association of moods with the direction of lines in art see his 1827 volume *Essai sur les signes inconditionnels dans l'art*. For a short summary see Zimmermann pp 56 – 58.

728. See Blanc 1867 and Zimmermann p. 56 col. 2.

729. Charles Henry (1859 – 1926) see his *Introduction à une esthétique scientifique*. For an account of Henry's life and ideas see Zimmermann Chapters V and VI.

730. For example, in *Irmelin* Act III scene 2 at the GS point falling at bar line 829/2356.

731. See Chapter 9 (text) and Plate 9.4 nos 1, 2 and 5.

732. cf. *Irmelin* Act III scene 2 where the change of theme begins in bar line 829/2356.

GS, and unlike the ascent formation, it seems unlikely to have been derived from a technique in painting or the visual arts. Since Delius appeared thoroughly adept in its use already in his 1888 setting of *Paa Vidderne*, a probable source of the technique would have been Leipzig, either the University or the Conservatoire.⁷³³ Conceivably also, he may have come upon Type II constructions directly through his own efforts.

In conclusion, it will be beneficial to try to investigate further Delius' social and artistic environment during his initial years in Paris, in particular to enquire, in view of his Golden Section and proportioning expertise, on what may have been his influence, direct or indirect, on others. Attention must necessarily be focussed on Delius' most ambitious work up to c. 1892, his first opera *Irmelin*, which is at once his most extensive venture in building large-scale forms involving the Golden Section, and at the same time, an esoteric work in which the Golden Section becomes a symbol of gold in an alchemical quest.

One of the first musical contacts Delius made after his arrival in Paris was with André Messenger,⁷³⁴ who was a close friend of Delius' Uncle Theodor, and a frequent visitor at his apartment in the rue Cambon.⁷³⁵ Messenger's other friends at that time included Gabriel Fauré whose pupil in composition he had been, and with whom Delius was acquainted. However, it was not until the end of 1893, that Messenger also came to know Claude Debussy, during the time Debussy was just beginning work on *Pelléas et Mélisande*,⁷³⁶ and whose première Messenger eventually conducted in April 1902. That Delius maintained a long-standing friendship with Messenger up to 1893 and beyond is suggested for example by the dedication to Messenger of his Verlaine setting *Il pleure dans mon cœur*⁷³⁷ and Messenger's continued interest in Delius some years later after Messenger had become Artistic Director at Covent Garden.⁷³⁸ The importance of Messenger in the current discussion is that, although it

733. See also Chapter 11 for the possible German origins of Type II division and the ascent formation.

734. André Messenger (1853 – 1929) today is best remembered for his own comic operas and operettas, but during his life-time was also well-known as a conductor of others' operas including those of Wagner, Mozart and Strauss. He gave the premières of Debussy's *Pelléas et Mélisande* and of Charpentier's *Louise*.

735. See Carley 1975 p. 15.

736. *Cahiers Debussy* (2002) p. 33: *À la fin de 1893 . . . l'éditeur Hartmann lui verse une pension de 500 frs. par mois pour lui permettre de travailler tranquillement à Pelléas. Et il lui fait connaître Messenger, auquel Debussy joue ce qu'il a déjà composé* [At the end of 1893 . . . the publisher Hartmann pays him [Debussy] a pension of 500 frs. per month to enable him to be able to work quietly on *Pelléas*. And he introduces him also to Messenger, to whom Debussy played what he had already composed [of *Pelléas*]].

737. According to the autograph of the song, Messenger was its dedicatee at the time of its first publication by Grus fils, Paris in 1896. The song itself was completed in 1895. See Threlfall 1977 p. 109 and Threlfall 1986 p. 56.

738. See Florent Schmitt's letter to Delius dated 1st November 1902 – Carley: *Letters I* p. 208.

is not recorded if he had plans to perform the opera, he was an admirer of Delius' *Irmelin*,⁷³⁹ and must have been aware of general (if not specific) parallels emerging between *Irmelin* and *Pelléas et Mélisande* as the composition of the latter progressed. Another figure in Paris who knew the score of *Irmelin* intimately was Florent Schmitt,⁷⁴⁰ who, together with Delius, made a piano reduction of the opera.⁷⁴¹ A third figure, who both worked on providing a piano reduction of Delius' 1901 – 1902 opera *Margot la Rouge*, and had also been employing GS since about 1895, was Maurice Ravel.⁷⁴² He would have known Delius by at least about 1894 when both men began frequenting the Molards' studio in the rue Vercingétorix.⁷⁴³ From the above it seems likely that there may have existed in Paris of the late 1880s and 1890s a loosely-knit but small group of musicians who were interested in the potentials of composing using the Golden Section, and who were aware of each other's progress and ideas. Artists such as Maurice Denis and Paul Sérusier may have been linked to such a group. During the 1890s, Debussy in addition to the Golden Section, was especially interested in esoteric matters, proposing on one occasion the formation of a "Société d'Esoterisme Musical":

*Vraiment la musique aurait dû être une science hermétique, gardée par des textes d'une interprétation tellement longue et difficile qu'elle aurait certainement découragé le troupeau de gens qui s'en servent avec la désinvolture que l'on met à se servir d'un mouchoir de poche! Or, et en outre, au lieu de chercher à répandre l'art dans le public, je propose la fondation d'une "Société d'Esotérisme Musical."*⁷⁴⁴

One might argue that *Irmelin* was the signal esoteric work of its period 'guarded by arcane and difficult texts' as well as by abstruse proportioning and thematic subterfuge – a work which Debussy might have applauded in its overall conception, if not in its detail.

739. Though highly praised by Grieg and André Messager, *Irmelin* was not performed during Delius' lifetime. The score [of *Irmelin*] aroused the interest of André Messager, conductor at the Opéra comique in Paris – see Holden p. 213.

740. Florent Schmitt (1870 – 1958) who also transcribed three later operas of Delius, *The Magic Fountain*, *Koanga* and *A village Romeo and Juliet*, became a life-long friend of Delius. Entering the Paris Conservatoire in October 1889, Schmitt studied *inter alia* under Massenet and Fauré.

741. Delius and Schmitt were known to be [still] working on the reduction during May 1894, Threlfall dating the period of their cooperation on *Irmelin* as 1893 – 1894 – Threlfall 1977 p. 21.

742. Maurice Ravel (1875 – 1937) had entered the Paris Conservatoire in November 1889. He had begun to use GS by 1898 in the song *Si morne!* See Howat p. 191 for Ravel's later use of GS proportion. The dates of Ravel's first acquaintance with Debussy seem to be unknown: Dietschy writes for instance 'In later years [than the early 1890s?] he [Debussy] would get to know Isaac Albeniz, Maurice Ravel, Charles Bordes, . . . (Dietschy pp 50 – 51).

743. See Carley *Letters I* p. 79, and Boulton Smith p. 25, p. 153.

744. 'Music should really have been an hermetic science, guarded by texts which are so arcane and difficult that it would certainly discourage the rabble who use it with the same indifference with which one would use a pocket handkerchief! Moreover, instead of trying to spread the Art [in]to the public [domain], I propose the establishment of a "Society of Musical Esoterism.'" – (Letter to Ernest Chausson from Debussy dated 3 September 1893 – see Debussy & Lesure 1980 p. 51).

It is interesting in this respect to compare individual elements of Debussy's *Pelléas et Mélisande* with those of *Irmelin*, which will help to support the notion of a group operating in Paris whose interest centred on the Golden Section, a group possibly contained within a larger esoteric grouping. Thus Roy Howat writes of *Pelléas et Mélisande* Act IV Scene 4:

The climax of the opera, Act 4 Scene 4 (the first scene Debussy set), accumulates its tension in a clear sequence of events; [...]. Its main dramatic pivot, after Pelléas's and Mélisande's declaration of love, is the point of literally no return, as Pelléas and Mélisande, in the garden, hear the castle doors lock for the night. [...] This divides the scene's total of 1316 crotchet beats in exact GS of 813: 503 [...] – as accurate as anything yet traced in this book.⁷⁴⁵

The dramatic and proportional characteristics described here are strikingly similar to those of *Irmelin* Act III Scene 2: Irmelin waits for her lover Nils at night time in her bower in the castle gardens. Nils approaches from afar, the whole scene 'pivoting' at bar line 829/2356, at the arrival of Nils. This is also the 'point of no return' firstly, since Irmelin has defied her father the king in eloping with Nils, and secondly that the drama at this point has attained the 3rd alchemical conjugation, leading into the gold or sun-stage in the allegory. The magnificent ascent structure, 68: 42 bars (bar lines 788/2315 to 897/2424), part of the much larger proportioned structure of Act III, has its GS point at bar line 829/2356 where it also reaches C sharp major, the target key of *Irmelin*.

An interesting point regarding this whole structure is that Delius superimposes several GS designs, bringing together the main motifs of the opera, as well as its main symbolic keys (F#, E and C# sharp major), in a dramatic culmination. The details of construction suggest the same 'structural counterpoint' occurring here as Howat describes in his Debussy analyses.⁷⁴⁶ It is not clear however, at which point Debussy begins to use such structural counterpoint, since *Clair de Lune* of the *Suite Bergamasque* is not datable to 1890 (as are some remaining movements of the *Suite*), and is probably more likely to have been a product of the early 1900s.⁷⁴⁷

745. Howat 1983a p. 156.

746. See Howat *ibid.* pp 13 – 14. 'One of the problems in defining Debussy's formal systems results from his fondness for staggering the turning points associated with various musical functions, so that, say, the music's tonal and motivic events follow separate rates of change [...] This visible and audible structural counterpoint will be seen [...] to correspond to counterpoint of two or more proportional sequences running simultaneously. The principle is in effect a large-scale type of polyrhythm ...'

747. See under *Suite Bergamasque* in the above text. See also Howat p. 41. Howat's analysis of *Spleen* (published 1888) would point to another example of early structural counterpoint, part of his analysis being based on subdividing the song at bar line 18/341 into 17 + 17 bars, the second group of 17 being further subdivided into 10½ + 6½ (GS = 10.5: 17.0 = 0.617647 = φ – 0.0003870). However, it is unclear how this latter proportion was derived, which it is believed should have been preferably 10: 7 bars – not a GS proportion (see Figure 10.4 no 4).

Richard Langham Smith's essay on *Pelléas* entitled *Tonalities of Darkness and Light* points to another notable correspondence between Debussy's opera and *Irmelin*:

Interspersed with them are preparations for the final solution into a key, which in its own right, has barely featured in the entire opera: C# major. The overall tonal progression of the opera is thus of a progression sharpward (through the circle-of-fifths) towards this, the sharpest key, highlighting the sharp key of F# major (one sharp less) and finally pushing one key further.⁷⁴⁸

The description of this passage immediately evokes the score of *Irmelin*: the cycle of fifths in *Irmelin* runs D, E, B, F# and C# major, (A major is omitted) with the two relative minors G# and D# (notated as E b minor), denoting respectively moods of obstruction and of sadness and desolation. As with *Mélisande*, F# major for *Irmelin* represents a striving for an ideal existence and an ideal lover – as does E major for *Nils*. Langham Smith's interpretation of *Pelléas et Mélisande* as a 'quest for light' would also accord perfectly with *Irmelin*:

Expressed in the above passage [of Maeterlinck's play] is the idea of love leading to an ideal far above itself. This, too, is a theme which may well be one interpretation of the quest for light pursued by the protagonists of Maeterlinck's play.⁷⁴⁹

Although the 'quest for love leading to an ideal far above itself' may have been an objective common to both the Debussy and Delius operas, (and both deriving from, for example, *Tristan und Isolde*), the idea of a 'quest for light' has a far less obvious provenance. The idea, however, is fundamental to *Irmelin*, the quest from darkness to light being the journey from darkness of the alchemical night, the *Nigredo*, to the full light of the Sun in the *Rubedo* stage. Mention should also be made regarding the main motifs associated with *Mélisande* and *Irmelin*. *Mélisande*'s motif, according to Langham Smith is, 'melodically pentatonic' as is also *Irmelin*'s main motif. Orledge writes of *Mélisande*'s theme:

This is primarily because [*Mélisande*'s theme] in particular has undergone so much transformation that it becomes difficult to remember exactly what the original was. In fact, *Mélisande*'s motif becomes more eloquent than *Mélisande* herself, [...] being perhaps best considered as the source of lyricism in the opera: soft, calm and slightly sad.⁷⁵⁰

Much the same description would characterise Delius' theme for *Irmelin*, and in fact Delius' constant development of his themes in *Irmelin* constitute another fascinating and complex network in the opera. Orledge writes of the opening prelude of *Pelléas* for example:

..... to a certain extent the opening prelude is a microcosm of the opera in that

748. See Nichols and Smith p. 133.

749. *ibid* p. 111.

750. See Orledge p. 95.

it presents the main motifs [...] associated respectively with the forest and antiquity, Golaud and Mélisande.⁷⁵¹

The opening prelude to *Irmelin* is a similar microcosm acting both as the source and genesis of the opera's motifs and main thematic materials,⁷⁵² whilst adumbrating also the overall proportional shape of Act III of the opera. In addition, the prelude moves early-on from the dark 'obstructive' key of G# minor to remain in the 'light' key of F# major, anticipating the opera's gradual move towards E, F# and C# major in the third Act.

Regarding Delius' period in Leipzig, it would be beneficial to clarify to what extent aesthetic theories involving the Golden Section had permeated artistic societies, groups of artisans *etc.* based there. Currently, there seems to be a dearth of any evidence on contemporary German artists and musicians who took up GS as a proportional or compositional strategy in their works. It is important, for example, to gain information on any artistic groups or learned societies operating in Leipzig (or elsewhere in Germany) who had an interest in Golden Section aesthetics.

A further crucial point would be to confirm through further research the probability or otherwise of GS strategies in early Delius works (such as the *Florida Suite* and *Pensée Mélodieuses* No.2) having been first applied in Leipzig rather than Paris. In Chapter 3 it had been initially assumed that GS proportioning in these works was first applied during revision in Paris. If this were true, of the *Florida Suite* for example, such revision would have involved an almost total dismemberment of any pre-existing Leipzig version and a complete re-writing in Paris, which does not accord well with the known history of the composition of the *Florida Suite* as established by Threlfall.⁷⁵³ Since the *Florida Suite* uses Type II GS constructions, it would be of exceptional value, for example, to confirm whether this technique had been initially used by Delius in Leipzig or whether he had first used it in Paris.

Thirdly, it should be clear that Delius, during his Paris years, was well situated to convey to young musicians his ideas on proportioning in music. In later years, for example, he was known to offer musical advice to Charles Wilfred Orr,⁷⁵⁴ Philip

751. Orledge p. 88.

752. See the text for Chapter III, and Chapter III Figures 10 – 15.

753. See Threlfall 1977 pp 124 – 125; Threlfall 1986 p. 69.

754. See Wilson Letter 4, p. 68.

Heseltine,⁷⁵⁵ and Béla Bartók,⁷⁵⁶ whilst both Edvard Munch⁷⁵⁷ and Clare Delius⁷⁵⁸ mention his generosity of spirit and interest in others, especially as a young man. In the early 1890s neither Maurice Ravel nor Florent Schmitt seemed to have been particularly close to Debussy, so that Ravel may well have gained his knowledge of GS initially from Delius rather than from Debussy. Similarly, Schmitt, who knew Erik Satie well from about 1891,⁷⁵⁹ may have been Satie's original source of GS information

Currently, however, no study appears to have been carried out on proportion in Florent Schmitt's music. However, his knowledge of *Irmelin* and subsequent long-standing friendship with Delius could suggest that a mutual interest in the Golden Section formed a part basis of their friendship. The rather perplexing phenomenon of several Delius GS techniques being used later by Debussy, sometimes after an interval of several years, warrants some additional investigation, as do the several close similarities between *Irmelin* and *Pelléas et Mélisande*. In this latter case, André Messager would seem to have acted as a conduit for information on *Irmelin*.

* * * * *

755. See Smith (2000) *passim*.

756. Delius first met both Béla Bartók and Zoltan Kodály at the Zürich Tonkünstlerfest in May 1910, Bartók in particular forming a close friendship with Delius. By August 1910, Delius had already offered advice to Bartók on the latter's *Suite No 2 for Orchestra*, the score of which Bartók had sent to Delius. That Delius was the original inspiration for Bartók's use of the Golden Section seems very probable, but an examination for the presence of GS in Bartók's compositions written during the periods both before and after May 1910, would be required to investigate this hypothesis further. That Bartók had been profoundly affected by his meeting with Delius in May 1910 seems evident from his letter to him dated 7th June 1910 (Carley *Letters II* p. 48).

757. See *Letters II* Munch to Delius p. 318.

758. See Clare Delius *passim*.

759. See Whiting p. 345 (text and footnote 2).

Table 10.1: Comparison of Individual Proportioning Techniques in Debussy and Delius

Primary GS division

Delius: *Florida Suite* overall work (1887/89); *Paa Vidderne* (1888); *Idylle de Printemps* (1889); *Summer Evening* (1890).

Delius: *Florida Suite* individual movements: III (1889); IV (1887).

Debussy: *Baudelaire Songs* (completed 1889); *Trois Mélodies* (1891); *Prélude à l'Après-Midi d'un Faune* (1892—Sept. 1994); *Suite Bergamasque* (rev. 1905).

Primary 2: 1 division

Delius: *Paa Vidderne* (1888) Movt. II.

Overlapping or Superimposed patterns

Delius: *Florida Suite* – overall work (1887/89); *Paa Vidderne* (1888) overall work; Movt. I; Movt. II. *Sakuntala* (1889).

Delius: *Florida Suite* – individual movements: Movt. I (1887); Movt II (1887); Movt. IV (1887).

Debussy: *Petite Suite* (completed 1889).

Nested Pattern(s) within B sections of a parent pattern

Delius: *Florida Suite* Movt. IV (1887); *Petite Suite No 1* (May 1889); *Trois Morceaux Caractéristiques* (1889 – 90); *Pensée Mélodieuse* (1885 revised 1887? 1888 – 9?).

Tripartite GS ABA'/XYZ patterns

Delius: *Florida Suite* – individual movements: Movt. I (1887); Movt. IV.

Delius: *Paa Vidderne* (1888) overall; *Paa Vidderne* Movt. I.

Debussy: *Baudelaire Songs* (completed 1889); *Trois Mélodies* (1891): overall? & Song I (*La mer est plus belle*).

Tripartite GS ABA'/XYX' patterns

Delius: *Paa Vidderne* (1888) Movt. II; *Idylle de Printemps* (1889) complete work.

Debussy: *Trois Mélodies* (1891): Song I. *Prose Lyriques* song IV (*de Soir* – 1893); *Images I* (1901–1905): Movt. I (*Reflets dans l'eau*); *Suite Bergamasque* (rev. 1905) – *Clair de lune*).

Quadripartite unmatched A/A' patterns

Delius: *Paa Vidderne* (1888) overall Figure 8.1; *Suite for Violin & Orchestra* (c. 1888) Movt. I; Movt. III + IV.

Quadripartite matched A/A' X/X' patterns

Delius: *Paa Vidderne* (1888) VI.

Debussy: *Prélude à l'Après-Midi d'un Faune* (1892—Sept. 1994).

Type II Hierarchies

Delius: *Pensée Mélodieuse* 1885 revised 1887? or 1888 – 89? (three members).

Paa Vidderne (1888) VI (two members); *Paa Vidderne* VIII (four members).

String Quartet (1888) (six members).

Debussy: *Prélude à l'Après-Midi d'un Faune* (1892—Sept. 1994 – two members).

Lucas Numbers

Delius: *Paa Vidderne* (1888) Movt. II Figure 8.3; *Paa Vidderne* VIII.

Debussy: *Trois Mélodies* (1891) Song I.

Double Lucas Numbers

Delius: *Paa Vidderne* (1888) Movt. I; *Paa Vidderne* Movt. IV.

Debussy: *Suite Bergamasque* (rev. 1905 – *Clair de Lune*).

Lucas Series

Delius: *Paa Vidderne* (1888) Movt. IV; *O schneller mein Roß* (1888)

Fibonacci numbers

Delius: *Paa Vidderne* (1888) Movt. IV.

Double Fibonacci Numbers

Delius: *Paa Vidderne* (1888) Movt. II.

Triple Fibonacci Numbers or Series

Delius: *Paa Vidderne* (1888) Movt. VI.

Debussy: *Prélude à l'Après-Midi d'un Faune* (1892 – Sept. 1994); *Images I* (1901–1905): Movt. I: *Reflets dans l'eau*.

Fibonacci series

Delius: *Paa Vidderne* (1888) Movt. VI.

Debussy: *La Damselle élue* (1887–88); *Images I* (1901–1905): Movt. I: *Reflets dans l'eau*.

Redistribution in Overall Work

Delius: *O schneller mein Roß* (1888); *Suite for Violin & Orchestra* (c. 1888).

Debussy: *Suite Bergamasque* (rev. 1905).

Within-Movement Redistribution

Delius: *Paa Vidderne* (1888) Movt. VIII.

Between Movement Redistribution:

Delius: *Suite for Violin & Orchestra* (c. 1888) Movts III & IV.

Linked climaxes/climactic points

Debussy: *Printemps* (Feb. 1887); *Images I* (1901–1905); *Suite Bergamasque* (rev. 1905).

Delius: *schneller mein Roß* (1888); *Suite for Violin & Orch.* (c. 1888) *Summer Evening* (1890).

Symmetrical GS pattern

Delius: *Pensée Mélodieuse* 1885 revised 1887? 1888 – 89?; *Florida Suite* 1887 rev 1889 – overall work at both bar and crotchet levels; *Summer Evening* (1890).

Debussy: *Petite Suite* 1888–1889; *Fêtes Galantes Song III – Clair de Lune*; *Prélude à l'Après-Midi d'un Faune* (1892–Sept. 1994 – see the 'B' section of the overall CGSP).

Omission of a prelude or opening section in an overall proportioning scheme

Delius: *Florida Suite* c. 1887 rev 1889 – overall work.

Debussy: *Petite Suite* 1888 – 1889; *Nocturnes* (Dec. 1897 – Dec. 1899): Movt. III – *Sirènes*.

GS Partitioning

Debussy: *Printemps* (Feb. 1887); *La Damselle élue* (1887–88); *Ariettes oubliées* (completed 1888?); *Baudelaire Songs* (completed 1889); *Fantaisie pour Piano et Orchestre* (Oct 1889 – Apr 1890); *Trois Mélodies* (1891); *Fêtes Galantes song I En sourdine* and song II *Fantoches* (1891 – 1892); *Prose Lyriques* (1892 – July 1893) overall proportioning and Song III *de Fleurs*; *Nocturnes* (Dec. 1897 – Dec. 1899); *Images I* (1901–1905): overall work and Movt. I – *Reflets dans l'eau*.

Delius: *Suite for Violin & Orchestra* (c. 1888) Movt I.

Ascent Formation

Delius: *Sakuntala* (1889) two ascent formations superimposed. *Idylle de Printemps* (1889)

Debussy: *Prélude à l'Après-Midi d'un Faune* (1892 – Sept. 1994); *Suite Bergamasque* (rev. 1905) Movt. II – *Menuet*.

Proportioning carried out only at crotchet level

Delius: *Florida Suite* 1889 Movts III (revised 1889) and IV (1887).

Debussy: *Printemps* (Feb. 1887).

Separate proportioning at bar and crotchet level

Delius: *Florida Suite* c. 1887 rev 1889 – overall work (rev 1889) and Movt I (1887).

Petite Suite No 1 (May 1889) 2: 1 proportioning in bars, GS proportioning in crotchets.

Trois Morceaux Caractéristiques (1889 – 90) – overall work is proportioned in crotchets, with individual movements in bars. *Summer Evening* (1890).

Debussy: *Prélude à l'Après-Midi d'un Faune* (1892 – Sept. 1994); *Images I* (1901–1905).

Table 10.1 Comparison between Delius and Debussy of the initial dates of their applying individual techniques of proportioning. For Debussy, data were obtained from a sample of compositions composed between 1883 – 1905. For Delius, the survey covered all works composed between 1887 – 1890. See the text of Chapter 10 for further details.

The previous chapter outlined various aspects of those elements of the intellectual and social environment in Leipzig thought likely to have aroused Delius' enthusiasm for the mathematical proportioning of his compositions. However, in the same chapter, any reference to, or discussion of, the period in Leipzig prior to the work of Zeising and which might be regarded as an alternative or additional potential source for Delius' ideas on proportion, was temporarily set aside. This was in part deference to a prevailing notion that all instances of GS occurring in art works before Zeising's publications would have arisen solely unconsciously, *via* an innate or inherent mental capacity.⁷⁶⁰ The purpose of the current chapter is to challenge this assumption by assessing the evidence for any compositional activity involving the conscious use of proportion, especially the Golden Section, over the first fifty years or so of 19th century Germany, *viz.* between the late classical and early to mid-romantic periods.

From a potential list of five or so composers, only Felix Mendelssohn was ultimately singled out for any attention. This was because it was Mendelssohn who had founded the *Leipzig Konservatorium* in 1843, and that at least one of Mendelssohn's former pupils or colleagues later taught Delius during his candidacy there.⁷⁶¹ In addition, another of Mendelssohn's pupils, Emil Naumann, was the first to attempt any interpretation of musical structure using GS proportional analysis. It was also Naumann who wrote about a specific GS technique which Delius was later to use and which was found to have been a standard procedure in Mendelssohn's music.⁷⁶²

As with Debussy in Chapter 10, several representative works were selected for an initial investigation. The survey was originally to have been limited to a few late Mendelssohn works. When it became clear, however, that Mendelssohn's proportioning strategies appeared to be an important precursor to Delius', the range of sample works was extended to cover some earlier compositions as follow:

760. See Chapter 1.

761. *viz.* Carl Reinecke (1824 – 1910) *vide infra*.

762. For details of Emil Naumann *see* Chapter 1.

Piano Sonata in E minor – (13 July 1820).⁷⁶³
String Symphony No 1 in C major – (1821).
String Symphony No 8 in D major – (November 1821).
Piano Quartet No 1 in C minor op. 1 – (1822).
String Symphony No 12 in G minor – (September 1823).
Symphony No 1 in C minor op. 11 – (1824).
String Quartet “No 2” in A minor op. 13 – (1827).
String Quartet “No 1” in E flat major op. 12 – (1829).
Symphony No 5 in D major op. 107 ‘Reformation’ – (1830).
Overture: The Hebrides (Fingal’s Cave) op. 26 – (1830 – 1832).
Symphony No 4 in A major ‘Italian’ op. 90 – (1833 – 1834).
String Quartets Nos 3 – 5 (D major, E minor & E flat major) op. 44 – (1838).
Lobgesang (“Symphony No. 2 in B flat major”) op. 52 – (1840).
Symphony No 3 in A minor op. 56 ‘Scottish’ – (1829 – 1842).
Violin Concerto in E minor op. 64 – (1838 – 1844).
String Quintet No 2 in B flat major op. 87 – (1845).
Piano Trio No 2 in C minor op. 66 – (1845).
String Quartet No 6 in F minor op. 80 – (1847).

Two well-known late works, the ‘Scottish’ Symphony and the Violin Concerto,⁷⁶⁴ will afford a brief overview of some of Mendelssohn’s main procedures.

The ‘Scottish’ Symphony is cast in an overall tripartite GS format of 795||150||:490 bars (pattern 1) in which Movt III forms the B section. The first movement comprises two further tripartite GS patterns (2 and 3), number 3 being nested within the B section of number 2. Movt III is similarly constructed but with two superimposed (but not nested) patterns (4 and 5). Movt II divides by a simple Type I GS proportion at the start of the development. Movt IV displays a simple hierarchical mixed set, the upper 1:1 division dividing the movement at the start of the recapitulation and sharing its point with a GS division as its second member.⁷⁶⁵

The Violin Concerto, unlike the Symphony, shows no overall comprehensive design. Each of its individual movements retains its own independent structure, however. Movt I corresponds with the GS partitioning technique described in Chapter 10 in the case of Debussy. Each of the first two sectors is divided by a single L:S GS division, with the third comprising a tripartite GS formation.⁷⁶⁶ Movt II is a similar tripartite GS formation. Movt III provides a

763. See Mendelssohn Bartholody 2008.

764. See Figures 11.1 and 11.2.

765. A comparison of proportion in the Symphony where the first movement repeat was excluded (*i.e.* in the above text and in Figure 11.1) with a situation where the repeat was included, suggested that Mendelssohn must have proportioned the work as presented here *viz.* without the repeat in Movt I.

766. See Figure 11.2 numbers 2a, 2b and 2c.

good example of 'tagging' applied to the redistribution process: thus a comparison of the sums of the three X sections and the two Y sections (where X and Y are 'tags' constituting contrasting musical passages) shows they both derived from a single original GS division.⁷⁶⁷

Table 11.1 (included in the text of the current chapter) gives a breakdown of some of the main features and components of Mendelssohn's proportioning praxis as exemplified in the works listed above. Thus the *GS tripartite pattern*, so essential to Delius' music, is also one of the most frequently encountered forms in Mendelssohn's and was present in works ranging in date from the *Piano Sonata in E minor* of mid-1820 to one of his last works, the *String Quartet in F minor* of 1847. A special instance of the *GS tripartite pattern* occurs when it encompasses an entire work, creating an overall *primary pattern*. This happens in both Symphonies No 3 (as above) and No 5.^{768, 769}

The *Complete GS Pattern*, also of major importance to Delius, is similarly to be found in Mendelssohn's music, notably in Movt II of the *A minor String Quartet*,⁷⁷⁰ and in the opening movement of the *Reformation Symphony*.⁷⁷¹ In Movt I of the *First String Symphony* a Complete GS Pattern occurs contained within a subsuming *Complete 2: 1 Pattern*.

Another important element of Mendelssohn's proportioning strategy is his placing of dynamic climaxes at the GS point of a GS division. This situation occurred in three of the eighteen works examined: The *A minor String Quartet* Movt II and the *Reformation Symphony* Movt I (both referred to above), as also the *C minor Piano Trio*. In addition, in what is essentially an *ascent formation*, the *String Quartet* movement shows a gradation of dynamics from its beginning up to the *ff* climax at the GS point (bar line 329), followed by a dynamic subsidence to the end of the movement. In the development section of the *Reformation Symphony* Movt I (bar lines 119 – 385) the 70 bars leading to the GS point (bar line 269) show a similar gradation of an increasing dynamic, but here there is no marked decrease or 'descent' following the GS point.

767. See Figure 11.2 number 4.

768. For the *Symphony No 5* see Figure 11.3.

769. The *2: 1 tripartite pattern* a corollary of the *GS tripartite pattern*, was relatively rare, and was found once only in the early *String Symphony No 8* of 1822.

770. See Figure 11.4 number 4. The score of Movt II of the *Quartet* is included in Annexe I.

771. See Figure 11.3 numbers 2 and 3.

A final component of Mendelssohn's proportioning to be mentioned here is his disposition towards techniques of *redistribution*,⁷⁷² which he used constantly throughout his composing career. Simple cases of redistribution are very frequently found but more complex examples in which several alternating cycles of GS and irregular subdivision are carried out, also occur.⁷⁷³

In comparing Delius' and Mendelssohn's approaches to proportioning, the most conspicuous parallel is their mutual use of GS patterns. However, Mendelssohn's music lacks the complex overlaying and lagging of patterns which is a hallmark of Delius', especially in his larger works such as *Paa Vidderne* or *Fennimore and Gerda*. This follows from the fact that Mendelssohn's methods are strongly bound to the *shaping of pre-existing forms* (such as the proportioning of sections within sonata form movements), whereas in Delius the various GS patterns have become 'released' from such a linkage to traditional forms, so that there is a strong tendency for patterning in Delius to be less constrained, more flexible and freer, so allowing patterning *to tend towards form in itself*. Following on from the above, a general distinction between Mendelssohn and Delius is the latter's proclivity towards a greater proportional elaboration, so that Delius' penchant for repeated Type I GS division leading to chains of subdivision, finds no parallel in Mendelssohn. Similarly, Delius' inclination towards downwards hierarchies or sets of GS and other divisions was absent from Mendelssohn other than his use of the simple two-member hierarchy of the Complete GS Pattern discussed above.

No definite conclusions could be drawn, however, regarding any general inter-relationship between bisection, 2: 1 and GS proportioning, although hierarchical dominance of 2: 1 over GS was suggested in several works⁷⁷⁴ whilst bisection over 2: 1 occurred only once.⁷⁷⁵

The above outline of proportioning in Mendelssohn suggests several problems needing further examination. These include the elucidation of Mendelssohn's own source(s) of information regarding his techniques of proportioning, and their mode of transmission to later musicians, including Delius. At the time he began using the Golden Section and other techniques, Mendelssohn was still only a young (13 or 14 years old) teenager living with his

772. See Chapter 2 under *Cycles of Subdivision and Redistribution Involving Alternating Stages* and Figure 2.8.

773. For a more complex case see Figure 11.3 number 6a.

774. For examples see Table 11.1 under numbers 4, 20 and 27.

775. See Table 11.1 under number 26 and Figure 11.4 number 3b.

family in Berlin. Even granted his extreme precocity and a high intelligence, it seems improbable that he devised his approach to proportioning completely independently and without any assistance.⁷⁷⁶ More plausibly, one of his teachers would have begun imparting such knowledge during Mendelssohn's boyhood. Amongst several possibilities, a likely figure to have been involved in this was Carl F. Zelter who tutored Mendelssohn in theory and composition from about 1817 or 1818 to 1821.⁷⁷⁷ One slight suggestion of Zelter's involvement is Mendelssohn's letter to him from England written on 20th July 1829, where Mendelssohn jokes with Zelter regarding the purported theoretical texts Zelter had used during his tutoring of Mendelssohn:

It made me laugh when musicians wondered here if I had learnt from Marpurg or Kirnberg, or whether I perhaps might prefer Fux [.....] to which I answered that I knew nothing at all about how I learnt, I only knew that you had taught me, and sadly had hardly read anything at all, since you thought so little about doing so: I saw quite clearly that they disbelieved me and were insisting on my naming someone – with Cramer positively asserting that I must have learned from some book, for it would be impossible without one! As I mentioned, I laughed at this, and thought about you, and thanked you that you had not squeezed me into any rigid academic discipline but had left me truly free and had nurtured (disciplined/educated) me in the knowledge of proper (appropriate/correct) boundaries.⁷⁷⁸

Whether the words *knowledge of proper boundaries* in the last sentence refer to proportioning procedures or not, it does suggest a thorough search in Mendelssohn's correspondence and into his own teaching methods might secure some further leads on this topic. Turning to Delius' own access to such information, two potential sources at the Leipzig Konservatorium immediately suggest themselves. These were *Carl Reinecke*⁷⁷⁹ and *Salomon Jadassohn*,⁷⁸⁰ two of

776. However, in a letter of Mendelssohn's dated March 22, 1820 (written to an unidentified doctor), he mentions his current study of Euclid's *Elements Book V*, and that he had already read the first four books of *The Elements* – See R. Larry Todd *ibid.* pp 14 – 15. [It is in Euclid's *Elements* Books II and VI that the "division into the extreme and mean ration" *i.e.* the Golden Section, first received its initial definition and treatment. For a discussion of Euclid's and other classical sources on the Golden Section see Herz-Fischler 1998].

777. See R. Larry Todd *ibid.* p. 12.

778. See Großmann-Vendrey p. 38 for the original complete letter in German and R. Larry Todd 2003 p. 43 for an alternative translation: *Lachen mußte ich oft wenn die Musiker hier sich fragen ob ich nach Marpurg oder Kirnberger gelernt hätte, oder ob ich vielleicht Fux vorzöge [.....] worauf ich antwortete: wie ich's gelernt hätte, das wüßte ich eben nicht, ich wüßte nur daß Sie es mir gelehrt, und gelesen hätte ich leider gar noch nichts, weil Sie wenig davon hielten, dann sah ich ihren ungläubigen Gesichtern recht gut an daß sie das nur für Renommage hielten, und Cramer behauptete geradezu, ich müßte durchaus nach einem Buch gelernt haben, denn ohne da ginge es nicht? Da lachte ich wie gesagt, und dachte an Sie, und dankte Ihnen, daß Sie mich nicht in der Steifheit einzwängender Lehrsätze, sondern in der wahren Freiheit d. h. in der Kenntnis der rechten Gränzen (Grenzen) erzogen haben.*

779. Carl Reinecke (1824 – 1910) was a famous pianist as well as a composer of operas, symphonies, concertos for various instruments, piano and chamber music (for a complete list of Reinecke's works refer to the IMSLP Petrucci web site). He settled in Leipzig in 1843, becoming conductor of the Leipzig Gewandhaus Orchester in 1860 and Professor of Composition at the Leipzig Konservatorium in the same year. From about 1843 he had studied privately with Mendelssohn, later writing about his experiences under Mendelssohn as teacher – See Reinecke 1911.

Delius' own teachers. From the annual reports on Delius issued by the *Konservatorium* he was a dedicated and aspiring pupil in the classes on music theory and composition:

He was a hard-working and conscientious student for quite a while [.....] He worked thoroughly through the course in theory up to fugue. He was not here for Easter but before that he was hard-working and composed some nice things [signed] Carl Reinecke.⁷⁸¹

Very hard working; he has made a thorough study of counterpoint including Fugue. [signed] S. Jadassohn.⁷⁸²

This contrasts with his performance in other subjects included in the curriculum, which he variously avoided or showed little interest in. A possibility is that it was either Reinicke or Jadassohn (the latter having just written a book entitled *Forms in Musical Works*) who had either imparted information on Mendelssohn's proportioning methods directly to Delius (perhaps extra-curricularly), or who had otherwise suggested to him individuals who were knowledgeable in this field. One approach to clarifying this point would be to carry out proportional analyses on some of Reinicke's or Jadassohn's larger-scale works (symphonies or concertos) to confirm whether either had adopted any of Mendelssohn's proportioning techniques.

780. Salomon Jadassohn (1831 – 1902) joined the Leipzig Konservatorium in 1848, a year after Mendelssohn's death. From 1871 he taught composition and piano there, and wrote several theoretical books on counterpoint, instrumentation *etc.* including, in 1885, a book entitled *Forms in Musical Works* (Jadassohn 1885). He also composed four symphonies, two piano concertos and a wealth of chamber and piano music (a full list of Jadassohn's compositions is given at the IMSLP Petrucci web site).

781. See Jones 1989 p. 5.

782. See Jones *ibid.*

Table 11.1: Components of Felix Mendelssohn's proportioning techniques

- 1. 2: 1 Division**
String Symphony No 1 (1821) Movt I (primary division); Movt III.
String Symphony No 8 (Nov. 1822) Movt II (primary division) L: S. Movt IV S: L.
Overture *The Hebrides* (1830 – 1832) (primary division).
String Quintet No 2 (1845) Movt IV (primary division).
- 2. 2: 1 Tripartite Pattern**
String Symphony No 8 (Nov. 1822) Movt I, Movt III.
- 3. 2: 1 Tripartite Pattern and Simple GS Division Superimposed**
String Symphony No 8 (Nov. 1822) Movt I
- 4. 2:1 Complete Pattern subsuming a GS Complete Pattern**
String Symphony No 1 (1821) Movt I.
- 5. Simple GS Division**
String Symphony No 12 (1823) Movt I primary division S: L.
Symphony No 1 (1824) Movt II L: S. Movt IV two L: S.
String Qt op 13 (1827) overall primary L: S division. Mvts I and III separately with L: S divisions.
Symphony No 5 (1830) Movt II S: L.
Symphony No 4 (1833 – 1834) Movt III.
String Qt op 44/2 (1838) each of Mvts I, II & IV. S: L, L: S & L: S.
Symphony No 3 (1842) Movt II S: L.
- 6. GS Tripartite Pattern**
Piano Sonata in E minor – (13 July 1820) Movt II.
String Symphony No 12 (1823) Movt I Movt III.
Overture *The Hebrides* (1830 – 1832) (development/recapitulation/coda).
String Qt op 44/1 (1838) Movt I.
Symphony No 4 (1833 – 1834) Movt I.
Violin Concerto (1838 – 1844) Movt I, Movt II.
- 7. GS Tripartite Pattern within a 1: 1 frame:**
Symphony No 5 (1830) Movt IV.
- 8. GS Tripartite Pattern Spanning more than a Single Movt**
Symphony No 5 (1830) Overall Tripartite GS Pattern.
Symphony No 3 (1842) Overall Tripartite GS Pattern
String Qt op 80 (1847) Spanning only Movts III & IV.
- 9. Nested Tripartite GS Patterns**
Symphony No 3 (1842) Movt I (two patterns, the second nested in the B section of the first).
Overall work is a tripartite pattern with two tripartite patterns nested in the B section
- 10. Superimposed Tripartite Patterns**
Symphony No 3 (1842) Movt III.
- 11. Complete GS Pattern**
String Symphony No 1 (1821) Movt I. (L: S format). Symphony No 1 (1824) Movt IV (L: S format). String Qt op 13 (1827) Movt II (L: S format). Symphony No 5 (1830) Movt I. (S: L format).
- 12. GS Partitioning**
Violin Concerto (1838 – 1844) Movt I.
Piano Trio No 2 (1845) Movt IV.
- 13. Adjacent Movts in GS Proportion** String Qt op 44/1 (1838) Movts I and

14. **GS Symmetrical Pattern**
Symphony No 5 (1830) Movt III.
15. **Simple GS Division with Subdivision**
String Qt op 44/3 (1838) Movt III L: S & L: S.
16. **Mixed Hierarchy (i.e. with shared point)**
Symphony No 3 (1842) Hierarch 1: 1 with GS.
17. **Climax Placed Centrally**
String Qt op 44/3 (1838) Movt III (67: 64 bars).
18. **Climax Placed by GS**
String Qt op 13 (1827) Movt II.
Symphony No 5 (1830) Movt I (development).
Piano Trio No 2 (1845) Movt II (climax in central Y section).
19. **Climaxes Linked by GS**
Symphony No 5 (1830) Movt I.
20. **Upper 1: 2 division subsuming lower GS Division**
String Qt op 44/2 (1838) Movt IV (the two do not share a common point).
21. **Upper 1: 1 Division subsuming lower GS Division**
Symphony No 3 (1842) Movt IV.
String Qt op 80 (1847) Movt I.
22. **Upper GS Division subsuming lower GS tripartite pattern**
String Symphony No 12 (1823) Movt I.
23. **Redistribution with/without tags Tags**
Pno Qt. op 1 (1822) Movt I (with tags).
String Qt op 12 (1829) Movt IV (with tags).
String Qt op 80 (1847) Movt II (with tags).
Piano Trio No 2 (1845) – overall work.
24. **GS Redistribution with/without tags Tags**
String Symphony No 1 (1821) Movt (clear tagging).
Symphony No 1 (1824) Movt I
Overture *The Hebrides* (1830 – 1832) (exposition, development and coda).
Violin Concerto (1838 – 1844) Movt III (clear tagging)
Piano Trio No 2 (1845) Movt III (clear tagging).
String Quintet No 2 (1845) Movt I & Movt III.
25. **Bisection (1: 1) with/without Redistribution and Tags**
Pno Qt. op 1 (1822) Movt II.
String Qt op 12 (1829) Movt I (not tagged) Movt II (with tags).
String Quintet No 2 (1845) Movt II.
26. **Bisection (1: 1) followed by 2:1 and Redistribution**
String Qt op 13 (1827) Movt I.
27. **2: 1 followed by GS and Redistribution**
String Qt op 13 (1827) Movt IV.
29. **Initial Tripartite Subdivision with Redistribution**
String Symphony No 8 (Nov. 1822) Movt IV.

<p>Table 11.1 <i>Components of Felix Mendelssohn's proportioning techniques</i>: Data were drawn from a sample of 18 works composed between 1820 – 1847. See the text of Chapter 11 for further details.</p>
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Chapter 12: Notes on Members of Delius' Circle of the 1880s and 1890s

A study of Delius' first three operas (Chapters 4 – 6), uncovered extensive reference to esoteric content – alchemical allegory, for instance, was found to dominate the texts of both *Irmelin* and *The Magic Fountain*. The present chapter will widen this enquiry into Delius' esoteric interests by examining, for the period covering the last two decades of the nineteenth century, the background and esoteric involvement of some of Delius' closest friends and family. Emphasis will be placed, wherever possible, on identifying any influences on Delius' outlook and development, as well as pointing to any reciprocal effect of Delius on individuals within his circle.

Jutta Bell (1859 – 1934)

In March 1884, Delius set sail from Liverpool for America, and after a period totalling some eighteen days or so arrived in Florida.⁷⁸³ He was to manage Solana Grove, a citrus plantation on the east bank of the St. Johns River, about 30 miles due south of Jacksonville.⁷⁸⁴ A close neighbour of Delius' was Mrs. Jutta Bell who (as Jutta Mordt) had herself only recently arrived in the United States from Oslo.⁷⁸⁵ In December 1883 she had married, in Florida, Charles E. Bell a lieutenant in the Royal Navy, their first child being born there in 1884.⁷⁸⁶

Evidence of a close bond having developed between Delius and Mrs. Bell is intimated in correspondence surviving from the 1890s⁷⁸⁷ after the latter had moved from Florida and was

⁷⁸³. Randel 1976 p. 148.

⁷⁸⁴. Julius Delius, Delius' father, purchased the estate, the deeds and titles being dated 13th August 1884 (Randel 1976 p. 149).

⁷⁸⁵. From about the mid-1890s onwards Jutta Bell adopted the professional name of (Madame) Jutta (Mordt) Bell-Ranske.

⁷⁸⁶. Exact dates of Jutta Bell's *curriculum vitae* have been found lacking in the literature. Those confirmed here include: *Birth*: 10 December 1859 (Oslo). *Marriage*: to Charles Edward Bell (born 1848) on 1 December 1883, in Jacksonville. *First child*: Charles Waldemar Bell, born 24 August 1884 in Florida. *Second child*: Mary Katherine Bell (nicknamed 'Tuli') born April 1888 in Wokingham, Berkshire. *Residence in South Kensington, London*: 1899 – 1904. *Jutta Bell's arrival back in New York* (after living in London and Paris): 3 November 1905. *Return to Jacksonville, Florida*: 1905. *Resident in New York*: c. 1908 – c. 1930. *Resident in San Francisco*: 1931 – 34. Jutta Bell died on 19 October 1934 in San Francisco, aged 74 years 10 months. [data from *ancestry.com* accessed 22 March 2014].

⁷⁸⁷. Some fifteen letters from Delius to Jutta Bell survive for the period 1894 – 1899. Those of Mrs. Bell to Delius have not been preserved (Carley, 1983 p. 85).

living in Paris and London.⁷⁸⁸ This bond appears to have arisen from a shared outlook between the two and which extended beyond a mutual interest in music.⁷⁸⁹ Despite Delius' rather condescending style of address towards Jutta Bell, it was she who in several ways appears the more dominating member of the pair. Just over two years older than Delius, she acted both in a supportive and mentoring role towards him, offering advice and sketches for the libretto of *The Magic Fountain* as well as potential assistance during periods of financial hardship.⁷⁹⁰ Reference to her activities in England during the 1890s and in the USA after she had returned there in 1903 reveals a highly active and creative personality motivated especially towards helping young persons entering a career in music or acting.

Two facets of Jutta Bell's later involvements are especially relevant to her earlier friendship with Delius. A fact unrecorded in the literature on Delius is that Jutta Bell, for a period from about 1877 and before her departure for the USA in 1883, had known Henrik Ibsen 'very well' and that following her settling in New York she became established as a well-known lecturer on Ibsen there, attracting large audiences.⁷⁹¹ Ibsen's poetry was less relevant in her view than the plays,⁷⁹² and in her lectures on the latter she emphasized what she described as their 'spiritual message'.⁷⁹³

788. Whilst she was studying singing with Mathilde Marchesi in Paris, Jutta Bell had lived with her (by now) two young children in the rue Morère, about 5 minutes' walk from Delius' address in the rue Ducouëdic (Carley 1975 p. 61).

789. For instance, in a letter to Jutta Bell dated 11 July 1894 Delius writes: 'I feel also that for the first time a woman understands me thoroughly – Believe me when I tell you that I understand you also and have the greatest admiration for you – Don't search any more for the truth. It will come to you working for a great cause' (Carley 1983 p. 83). In an earlier letter to Jutta Bell Delius had written in a similar vein '... I see in you a sister nature to mine. You are about the only woman that understands a little what I am driving at.' (Carley *ibid.* p. 86). On the relationship between Delius and Jutta Bell Christopher Redwood writes for example 'one senses from his [Delius'] letters a strong spiritual affinity' (Redwood 1976 p. 219). That there was any sexual relationship between Delius and Jutta Bell during Delius' time in Florida (as hinted by Gillespie p. 56) seems rather unlikely: Jutta Bell would have been heavily pregnant at the time of Delius arrival at Solana Grove, and subsequently would have been looking after a young baby up to the time of his departure from there in the summer of 1885. Similarly, Jutta Bell was living with her two young children whilst she was resident and studying in Paris in the mid-1890s

790. Mrs. Henry L. Richmond in a short handwritten statement, in part summarizing information on Jutta Bell from Jutta's sister, Mrs. Andrew Menke notes: 'She had a deep influence on the early musical life of young Frederick Delius, being among the first to recognize and encourage his genius. Delius's love of Grieg's music was formed at Solano Grove through Jutta Bell, herself a Norwegian and [on her Father's side] connected by marriage with Grieg's family.' In the same article, she mentions also that Jutta Bell had collaborated with Delius on two of his earliest songs– (Richmond, 1945). Concerning Jutta's offer of financial assistance to Delius see: *Letters I* p. 89.

791. See the article "Friend of Ibsen . . ." referenced under *New York Call*.

792. *New York Call ibid.*

793. See the article "Either Ibsen . . ." referenced under *The Columbia Daily Spectator*. Apart from general presentations on Ibsen, individual plays on which Jutta Bell lectured between 1908 and the early 1920s included: *Peer Gynt*, *The Master Builder*, *Rosmersholm*, *Brand*, *The Wild Duck*, *Little Eyolf* and *When We Dead Awaken*. Venues in New York initially varied, but after early 1915 most lectures were delivered at The People's Institute, Cooper

A second facet of Jutta Bell's later involvements pertains to *American Transcendentalism*⁷⁹⁴ and to *The American Metaphysical Movements*.⁷⁹⁵ Some of the earliest references to Jutta Bell in the New York press concern her interest in topics such as 'self-realization' and the 'power of thought'.^{796, 797} She was especially involved with questions on the status of women both in society and in marriage relationships.⁷⁹⁸ Her views on the suffragist movement were thought especially controversial, in that she believed women should not become enmeshed in societal issues such as suffrage and that they were destined instead for a higher more 'spiritual' role in the future transformation of society.⁷⁹⁹ A later source confirms she was holding similar millenarian views some seven years later.⁸⁰⁰ Jutta Bell's 1924 publication *The Revelation of*

Union, where Jutta Bell became a director. On occasion, she also lectured on other dramatists including Maeterlinck (referenced under *The Evening Post* [New York]) as well as Strindberg and Bjørnsen (*New York Evening Call*). Interestingly, Jutta Bell also produced and acted in Stanisław Przybyszewski's 1903 play 'The Snow Storm' (*Der Schnee*), – (Przybyszewski was an occultist and close friend of both Edvard Munch and August Strindberg in Berlin during the early 1890s). See above text and under *New York Times* 14 February 1910.

794. A philosophical or spiritual movement arising from a split with Boston Unitarianist Church but from which it derived some of its basic tenets. The foremost member of the Transcendentalist movement was Ralph Waldo Emerson 1803 – 1882. Others included Henry David Thoreau (1817 – 1862), Margaret Fuller (1810 – 1850) and Bronson Alcott (1799 – 1888). Walt Whitman (1819 – 1892), although living and working in New York (and not Massachusetts), is frequently classed as a Transcendentalist (see under Asselineau). The basic philosophical stance of the Transcendentalists is variously described as *monistic i.e.* 'God' the 'Oversoul' or 'Life Force' is immanent in nature, and is permanently and directly present in all things, or *panentheistic i.e.* (additionally) the World/Cosmos is an emanation of a Transcendent Divine principle (Cooper pp. 135 – 137). The movement emphasized the importance of intuitive thought and encouraged therefore the development and reliance on individual spiritual or mystical experience (thereby rejecting intervention by any religious authority or orthodoxy in this process). Development of this intuition was best attained through introspective contemplation carried out amid Nature and away from everyday social activity. As an extension of the belief in an all-pervading Oversoul, the Transcendentalists became active in major social movements of 19th century America including the abolition of slavery and equal rights for women.

795. The term *American Metaphysical Movements* collectively refers to several groups which followed in the wake of and shared the general tenets of Transcendentalism. They include the *Spiritualist Movement* (originating in New York c. 1848), the *Theosophical Movement* (founded in New York 1875), the *New Thought Movement* (active from about 1866) and the *Divine Science Church* (founded 1888 in San Francisco). See Judah 1967.

796. See under newspaper references *The New York Tribune* for 12 October 1909, and *The New York Sun* of 19 December 1910.

797. Contemporary descriptions of Jutta Bell portray her as a likeable if highly eccentric personality – her views on society and religious topics were reported as somewhat incomprehensible and outlandish, whilst her office in New York was described as adorned with images of the Buddha, of Krishna and various other Asian accoutrements (see the article in the *New York Sun* dated 19 December 1910). A continuing penchant for Indian thought was confirmed in her libretto for John Adam Hugo's opera *The Temple Dancer* (Metropolitan Theatre March 1919) based on Hindu subject matter, as well as in her book *The Revelation of Man* where, in addition to Transcendentalism, her ideas were heavily influenced by Indian *Kundalini Yoga* and by notions of *Prāṇa* (vital breath).

798. Jutta Bell had herself previously separated from her husband Charles. She had informed Delius of this development at some date between July and December 1896. See letter: Fritz Delius to Jutta Bell of 23? December 1896 in: Carley 1983 pp. 109 – 110.

799. See the *New York Tribune* March 17, 1910.

800. See the *Washington Times* for March 12, 1917.

Man—A Key to Mystic Science offers a detailed account of her beliefs, many of which fall readily within the ambit of American Transcendentalist thought and ideology.^{801, 802, 803, 804}

Although there are currently several 'gaps' in the documentation on Jutta Bell's movements and background, her potential influence on Delius may have been considerable. Her enthusiasm for, and personal acquaintance with Ibsen for example, would seem likely to have contributed to Delius' own early devotion to the writer. As regards Delius' personal views and beliefs, the information on this topic when restricted to his immediate family and close friends may prove the most credible:

The earth, the force of life, the "All-Being" Delius could not now bring himself to call God, would endure. What he said was "All-Being" animated the universe and absorbed the lives of all men eventually, yet they deserved to live these lives first. "All-Being" was creation and hope, [. . .] Orthodox believers would call this paganism. Let them. He knew "All-Being" from his own contemplative experience⁸⁰⁵

This quotation, given by Jahoda in connection with Delius' 'pagan' *Requiem* (1916) not only sharply contrasts Delius' beliefs with those of orthodox Christianity but also with those of

801. Transcendentalist ideas covered in the book included: *the absence of any principle of evil in the universe* (p. 6); *a universe in which correspondence or analogy operate* (p. 8, 61, 141, 185); *belief in a pervasive, imminent divine principal (rather than an externalized God)* p. 85, 92; 103, 123; *the importance of intuitive wisdom or knowledge* (p. 89); *opposition to orthodox Christianity or any imposition of their creedal beliefs. Hence ideas of an 'esoteric church' existing alongside the established 'exoteric church'* (pp. 101 – 108, p. 115); *Millenarianism* (p. 110). Reference to any ideas of the *American Metaphysical Movements*, (as distinct from Transcendentalism), were not generally discernible in the book. However, a method of exegesis of sacred texts which was characteristic of the American Metaphysical Movements, and where words were assigned occult, metaphysical or spiritual meanings (and without any awareness or reference to existing historical or literary criticism) appears also to have been used in Bell's interpretation of *The Revelation of St John the Divine* (see Judah p.17 § 14).

802. A sequel to the book entitled *The Spirit in Which We Live* was planned (and completed?) but remained unpublished (see the back-matter to *The Revelation of Man*).

803. Earlier writings of Jutta Bell which suggest mutual interests between herself and Delius include *Poème en Prose* published 1894 in *l'Initiation* two months after Delius and Papus published their own paper in the same journal. It describes a mystical quest with underlying motifs somewhat similar to *Paa Vidderne* or *Irmelin*, the protagonist being initially lost in a forest and lured by seductive women, but subsequently taking a pathway leading away and up to the mountain top. The tale culminates in a symbolic mystical union. Jutta Bell's later work *Peasant Lassies* is a volume of short stories on Norwegian peasant life. They contain elements of the Scandinavian supernatural and of folklore and folk music. The young Englishman, Grey, in the first story, seems likely to have been based on Delius' personality.

804. A basic idea introduced into *The Key to Mystic Science* is the belief that the cosmos is permeated by various 'waves,' e.g. x-rays as described in the physical sciences, but including also more tenuous wave types ('thought forms' etc.). The idea resembled those of Munch and Strindberg and does not appear to be part of American Transcendentalist thought. It seems likely that Delius may have introduced Jutta Bell to her compatriot Edvard Munch at a time when both were resident in Paris, and from whom such ideas may have originated (see also the section on Munch below).

805. See Jahoda p. 175. The information would have originated from Delius' favourite sister Clare and relayed to Jahoda through Margaret Vessey, Clare's daughter, after Clare's death.

Friederich Nietzsche. Instead we have a clear indication of Delius' affirmation of a Transcendentalist perspective, every point made in the above quotation clearly reflecting Transcendentalist ideas.⁸⁰⁶ Other aspects of Delius' beliefs and behaviour also suggest a world-view close to the Transcendentalists. These included his strong anti-slavery stance, as exemplified in *Koanga* and *Appalachia*, as well as his habit of contemplation – a practice he developed in Florida – and a typical facet of Transcendentalist spiritual pursuit.⁸⁰⁷

Clare Delius (1866 – 1954)

*Clare Delius*⁸⁰⁸ the sixth child of Julius and Elisa Delius, was some three or four years younger than Delius. As mentioned by the composer, she was the closest to him of all his surviving family, which at one stage had numbered around thirteen or so siblings.⁸⁰⁹ Married in 1889,⁸¹⁰ Clare, by 1902, had become the mother of five children,⁸¹¹ two of whom, Dorothy⁸¹² and Margaret,⁸¹³ provided valuable reminiscences of the Delius Family and/or of Delius himself. In addition, Clare Delius wrote an important biography of her brother in which she strongly criticized the recent portrayals of Delius as an elderly dying invalid as having replaced the 'truer' images of an earlier and more generously disposed Delius, at the peak of his physical and creative prime.⁸¹⁴ Additionally, both Clare and (probably) her youngest daughter

806. Compare for example items listed under *Basic Tenets of American Transcendentalism* in Reuben (referenced above): 'The human soul is part of the Oversoul or universal spirit (or "float" for Whitman) to which it and other souls return at death./This Oversoul or Life Force or God can be found everywhere/More important than a concern about the afterlife, should be a concern for this life - Emphasis should be placed on the here and now. "Give me one world at a time." - Thoreau -

807. See Andrews p.12 for information on contemplative practices carried out by the Transcendentalists. Regarding Delius and contemplation see Chapter 14.

808. As with Frederick, Clare at some stage anglicized her name from an original baptismal German form – which in her case had been 'Clara'.

809. Carley, 1988 p. 87.

810. Clare married John William Allan Black, the couple initially living at Folly Hall, Wibsey, Bradford. John Black was in the cloth trade at that time and was apparently an employer at the Folly Hall Mill at Wibsey.

811. viz. Dorothy Black (1890 – 1977) the well-known novelist (married surname Macleish); Kathleen (born December 1891); Claire (born 1894); Hugh (born May 1899 and killed in action in the battle of the Somme in August 1918), and 'Margaret' (born Elsa Margaret Allan Black in 1902 and died in 1978. In May 1931 she married George Patrick Dundas Vessey, who died, aged 33, in the year following the marriage. Margaret took the married name of *Margaret de Vesci* or *Margaret Vessey*) – details from *ancestry.com* June 2014.

812. Dorothy Black (1961)

813. Jahoda (undated); Jahoda (1969); Redwood (1978). Gloria Jahoda's writings on Delius are largely based on information supplied to her by Margaret Vessey both on her mother's and on her own reminiscences of Delius.

814. Clare Delius (1935).

Margaret were gifted with 'psychic' abilities,⁸¹⁵ with both variously confirming or hinting that Delius himself possessed such faculties – (Delius at the same time seemed sceptical or loath to acknowledge and make known such matters, however). Charles Keary's novel *The Journalist* in which Delius is portrayed in two of the main characters, as well as Cecil Gray's autobiography *Musical Chairs* both seem to corroborate Delius' possessing marked powers of psychic or extra sensory perception, however. This important topic will be covered more extensively when discussing some facets of Delius' own personality in Chapters 13 and 14.

Charles Francis Keary (1848 – 1917)

Arguably one of the most important influences on Delius between the late 1880s and early 1900s, Charles Francis Keary remains one of the most enigmatic and least discussed of Delius' circle of friends. Educated at Marlborough College and at Trinity College, Cambridge,⁸¹⁶ he was a man of wide interests, specialising in Norwegian and Scandinavian history and literature,⁸¹⁷ and also publishing variously in philosophy, art, literature and poetics.⁸¹⁸ From March 1872 he held a position at the British Museum, Department of Coins and Medals but retired from there in May 1887 in order to pursue his primary interest in art and letters. He wrote seven novels, three of which are directly concerned with Delius or his environment in 1890s Paris. In his fourth novel *The Journalist* the figure of Delius is portrayed in two of the main characters, each of whom suggest aspects of Delius' 'inner life' which otherwise remain largely unrecognised or unexplored. Like Delius himself, Keary was a passionate traveller, Walter Pollock, one of his closest friends, writing shortly after Keary's death that 'he must always have had in him the true spirit and joy of wandering'.⁸¹⁹ In *The Wanderer*, his 1888 volume on travel and *belles lettres*, Keary relates his travels in Sweden, Norway, Germany and Italy, and in *India: Impressions* (1905) those in India and Afghanistan.

⁸¹⁵ Clare Delius claimed to have had 'various psychic experiences' at the Delius Family home, Claremont (Redwood 1978 p. 19) and at Folly Hall (Clare Delius *ibid.* p. 108), whilst her daughter Margaret cites an example of Clare's precognitive abilities, as well as her life-long possession of the faculty of 'voice hearing' (Jahoda (undated) pp. 17 – 18; p. 20). Margaret herself seems to have shown some degree of clairaudient ability, at least during her childhood (Jahoda *ibid.* p. 33).

⁸¹⁶ Keary was admitted to Trinity College in August 1866 and graduated from there with a BA in 1871 and MA in 1874. *see under* ACAD in the references.

⁸¹⁷ For instance, *see* Keary (1888), (1891), (1892) and (1901).

⁸¹⁸ For a complete list of Keary's writings *see* Shattock (1999) volume 4 columns 1602 – 1604.

⁸¹⁹ Pollock p. 1265.

Charles Whibley recounts however that France became Keary's 'true home' where he settled variously in the Forest of Fontainebleau and in the Pyrenees,⁸²⁰ as well as in Paris, which he knew well.⁸²¹ In Keary's second novel *The Two Lancrofts* (1893) detailed accounts occur of the environs with which Delius was also familiar, part of the plot being focussed on a group of artists studying at the *Académie Colarossi*, in the Rue de la Grande Chaumière.

A little-known interest of Keary's lay in the field of psychical research, especially in the work of the members of the Society for Psychical Research, founded in February 1882. Facets of this research which interested him included visions and visionary material, and the perception of distant events either 'seen' directly or through telepathic transference from a local observer to a remote recipient. Keary's third novel *Herbert Vanlennert*, (published late 1895/early 1896 – and immediately before his purported 'first' meeting with Delius in the Spring of 1896 – see Chapter 4), makes extensive plot reference to these phenomena, especially to cases of telepathic transference over large distances. His interest in 'direct cognition' of distant events due to 'psychic' faculties such as extra sensory perception is exemplified in the eponymous hero of Keary's libretto for Delius' opera *Koanga* (Chapter 6).⁸²² Keary's fascination with visions and visionary phenomena, already evident from his early scholarly writings on European history, bore fruit in *The Journalist* in which the main character, Richard Vaux, undergoes a gradual transformation from a conventional life in journalism to enter the early stages of what is effectively a mystical pathway, experiencing various visionary and auditory phenomena during this process.⁸²³

820. Whibley p. 1272 in Pollock

821. Pollock p.1266 and Whibley p. 1272 in Pollock.

822. Another example of Keary's absorption in psychic and telepathic phenomena may be found in the libretto for *A Village Romeo and Juliet* which Keary had worked on prior to Delius' taking over the task himself. In Scene IV of the opera, the entire sequence *The Dream of Sali and Vrenchen* would most likely have stemmed from an idea of Keary's, i.e. that the two lovers, Sali and Vrenchen, should have the *same dream* (of their marrying one another in a church ceremony). On their awakening, Vreli relates her dream to Sali who remarks "The dream you dreamt I also dreamt, – how very strange" The episode alludes to research carried out by the SPR during the 1880s and 1890s and where two persons experience the same or similar dream concurrently by a process of an implied telepathic transference (see Gurney, Myers and Podmore Volume I Chapter VIII part II *Examples of Dreams which may Reasonably Regarded as Telepathic* also Podmore Chapter VIII *Coincident Dreams: Simultaneous Dreams*. In *Romeo und Julia auf dem Dorfe*, Gottfried Keller's original story on which the Delius opera is based, it is Vrenchen alone who dreams of marriage with Sali, whilst Sali himself relates an entirely different dream.

823. Keary's interest in telepathic and psychic phenomena may have originated during his time at Trinity College Cambridge, where his contemporaries included several of the founding members of *The Society for Psychical Research*, (established 1882). These included Edmund Gurney (1847 – 1888), Frederick Myers (1843 – 1901) and Henry Sidgwick (1838 – 1900). It was Myers who persuaded Sidgwick in May 1874, to form a forerunner at

A related interest of Keary's, (and reflecting also Delius' tastes) was the occult and supernatural, the latter particularly in the realms of an often rather menacing or sinister *faerie*. His occult short stories all stem from the 1890s, the first of these, *The Four Students* (1891 – 92) having already been mentioned as a source of the plot of *Koanga* (Chapter 6). Another tale, *Elizabeth* (1896), derives some of its influences from Germanic folklore, and interestingly, shows evidence of Keary's familiarity with Gottfried Keller's *Romeo und Julia auf dem Dorfe* a text in which he was to later collaborate in adapting for Delius' fourth opera *A Village Romeo and Juliet*.⁸²⁴ Both of Keary's long narrative poems involve hierarchies of supernatural beings found in European fairy and folk tales, the first of these, *The Brothers: a fairy masque* (1902) being developed from his cooperation with Delius at some stage on the libretto for *Irmelin* (Chapter 4).⁸²⁵

Keary remained interested in religious matters throughout his life. Himself either a sceptic or a non-Christian, he was orientated towards the religious world view of classical antiquity, including polytheism.⁸²⁶ In addition to a familiarity with Greek and Latin, his writings indicate he had a wide proficiency in modern languages, including Norwegian, Danish, French, German and Italian.

Keary's primary importance in relationship to Delius studies would be his portrayal of Delius in *The Journalist* (Chapter 14) and in the close similarity in the interests of the two men, which suggest Keary would have been able to advise Delius in the choice of (Scandinavian) texts *etc.* In a wider context his fiction is among the first to detail processes of mystical experience in a 'secular' (as opposed to an orthodox religious) milieu and where he anticipates the standard writings of William James and Evelyn Underhill on this subject. Keary's personal movements have been found difficult to trace, but he was known to be

Trinity of the future SPR, whilst Sidgwick himself became the SPR's first president in 1882 (see Oppenheim p.125). A further influence on Keary's interests may have followed his own experiences whilst in Rome c. 1887 – 8, and where he describes out of the body and near-death experiences whilst suffering from a fever induced by a typhus infection (see: *A Wanderer* Ch. X *The Longest Journey*).

824. The plot of *Elizabeth* describes a disputed strip of uncultivated no-man's land lying between two different land or village ownerships but belonging to neither. Due to its accursed nature, the strip was left 'wild and desolate' and was shunned by travelers (Keary 1896 p. 348). The idea resembles one found in Keller's *Romeo und Julia auf dem Dorfe*, where a dispute over a strip of neglected waste land lying between two cultivated strips ultimately leads to the *dénouement* of the plot (Keller 1856).

825. The second is *Rigel, an autumn mystery* (1903).

826. Anon (1917).

resident in the *Rive Gauche* at some stage during the 1890s,⁸²⁷ as well as, by 1997, at Bourron neighbouring Grez sur Loing.⁸²⁸ From surviving correspondence, Keary and Delius remained on friendly terms until at least 1908.⁸²⁹

Gérard Encausse (1865 – 1916)

Gérard Anacleto Vincent Encausse – better known under his pseudonym *Papus* – was one of the main promulgators of popular occultism in *fin-de-siècle* France. A man of enormous zest and organizing capacity, he founded or otherwise played significant roles in the establishment of several esoteric societies and movements during the period.⁸³⁰ He was also the inaugurator and an editor of *l'Initiation*, the most important journal of occult studies in late nineteenth century France.⁸³¹

Initial evidence of Delius' contact with the Papus circle dates from early 1893 when he met the singer Emma Calvé (for whom he cast a horoscope), whilst his first encounter with Papus himself dates from late September 1893. That Calvé, Papus and Delius became close associates at this time is intimated in a dinner-party invitation from Calvé to Delius and Papus: *Nous serons tout à fait entre nous! Deux ou trois occultistes tous braves gens bien simples . .*

.⁸³² One of the probable reasons for Delius' liaison with Papus and his group at this time

827. Pollock p. 1266.

828. Carley (1983) p. 101.

829. Carley (*ibid.*) p. 116.

830. These included the *Groupe Indépendant d'Études Ésotériques* (later *École Hermétique*) inaugurated in 1891, which gave public lectures on and offered courses in occult studies. Also in 1891, and with the intention of re-establishing a lineage for the eighteenth-century sect of Martinism, Papus founded *l'Ordre Martiniste*. This became highly successful, with branches being formed in the USA and S. America, whilst in France the *Ordre* attracted membership of the Country's most prominent occultists including René Guénon (1886 –1951), Joséphin Péladan (1858 – 1918) and Stanislas de Guaita (1861 – 1896) – see Introvigne p. 780. Papus also became a prominent member of *l'Ordre kabbalistique de la Rose-Croix* founded by de Guaita, Péladan and others during 1888 (Billy, p. 175).

831. The full title of the periodical gives some indication of its scope: *l'Initiation, Revue Philosophique indépendante des Hautes Études. Hypnotisme, Théosophie, Franc-maçonnerie, Sciences occultes* (André, M.-S., & Beaufils, C. p. 54 footnote 15). *l'Initiation* was published from October 1888 until 1912, there being ten issues per year. The general stance of *l'Initiation* was 'a rejection of both positive materialism and the claims of the Roman Catholic Church' its broad eclecticism underlying the objective of destroying 'religious hatred by revealing the unity of all forms of worship in a single religion' (Pierrot p. 106). Also, (and despite the reference to theosophy in the full title of *l'Initiation*) the periodical aligned itself to a large extent only with western forms of esotericism, perhaps reflecting the views of Papus' close friend Stanislas de Guaita that 'there was already an autochthonous tradition in Europe itself that stretched back unbroken to the most ancient times (Pierrot p. 103)'. Papus also published several books as well as a large number of brochures on various occult topics. A full list of Papus' publications may be found in André, M.-S., & Beaufils, C. pp. 341 – 351.

832. 'It will just be between [the three of] us. Two or three occultists all courageous, straightforward folk.' *quoted in*: Carley (1975) p. 34.

would be Delius' concurrent planning of an opera to follow *Irmelin* with the idea of forming an alchemical diptych with the earlier work.⁸³³ Himself an early enthusiast for alchemy,⁸³⁴ Papus would also have been able to introduce Delius to persons of specialist knowledge in the field.⁸³⁵

A further objective of Delius may have been to extend his ideas on proportional interrelationships within his music by applying these to the layout, interconnections and disposition of instruments within the orchestra itself.⁸³⁶ It was in *Anatomie et Physiologie de l'Orchestre*, which was published by *l'Initiation* in September 1894, that Delius and Papus set out their manifesto for such a re-deployment of orchestral instruments and which accorded to the esoteric principles laid down in the Jewish Kabbala.^{837, 838} They made especial use of the *Tetragrammaton* a symbol of the four successive emanations of the *Ein Sof*,⁸³⁹ denoted by the Hebrew letters *Yod, He Vau He*. By laying out these four grouped in a tetrad, and substituting their terrestrial compliments using the ideas of *vertical correspondence*,⁸⁴⁰ they gradually mapped out a new configuration for the sections of the orchestra, and for instruments within each section, arriving at a design of four-within-four tetrads (see Figure 12.1). Within each tetrad, instruments substituted in the position in the two original *He* are incidences of *horizontal correspondence*. That Delius and Papus had based their model on the theory of correspondences is confirmed several times in an appendix to their paper, for example: *C'est-à-dire que le compositeur, ayant à développer un thème dans lequel il met en jeu les grands Principes*

833. viz. *The Magic Fountain*.

834. Papus' involvement in alchemy dated from 1883 when he was first 'initiated' into the tradition (Caron p. 18).

835. These include Albert Poisson (born 1869) who at the time of his early death on 27 June 1894 was involved in a multi-volume project entitled *Encyclopédie de l'alchimie*, and who had also set up in March 1893 the alchemical *Société Hermétique* (Caron p. 21 and p. 24). Another important contemporary figure in French alchemy was François Jollivet Castelot (1874 – 1937), a pupil of Poisson, and a mentor in alchemy of Delius' colleague August Strindberg (1849 – 1912). In 1897, in continuation of Poisson's *Société Hermétique*, Jollivet Castelot set up the *Société Alchimique de France* (Caron p. 24).

836. These ideas may feasibly be regarded as stemming from Hermeticism, a modern term denoting an esoteric movement, originating largely during the Italian Renaissance. It began as a conflation of elements of Neoplatonic and Jewish mysticism with components of the Hermetic tradition of late antiquity. Delius' involvement with alchemical thought would have made him very aware of such Neoplatonic concepts as *emanation* and *correspondence* (see Chapter 13), images of which he would have recognized in his own proportioning procedures.

837. Kabbala was originally a Jewish tradition of mysticism which emerged in the late mediaeval period in Spain and the South of France. During and post the Renaissance period syncretized forms of Kabbala with Hermetic and Christian thought also developed.

838. For discussions of *Anatomie et Physiologie de l'Orchestre* see Jensen (1994) and Matthews, P. (2008).

839. *Ein Sof* in Kabbala is the infinite, uncreated, divine source of all creation.

840. The terms *horizontal* and *vertical correspondence* are discussed in Chapter 13

*en action dans l'Univers, devra se conformer, s'il veut adapter les enseignements de l'Hermétisme, aux correspondances que nous venons de préciser.*⁸⁴¹ There seems little evidence to support Lionel Carley's view that Delius had only a negligible input in writing *Anatomie et Physiologie de l'Orchestre* or that the ideas were primarily Papus'.⁸⁴² On the contrary, (and as implied above), the thoughts expressed accord with Delius own contemporary interest in Neoplatonism and Hermeticism – thoughts which are also mirrored in the structures and ideas already discernible in his own compositions.⁸⁴³

Edvard Munch (1863 – 1944)

Edvard Munch and Delius met initially sometime between late 1889 and 1891.⁸⁴⁴ Munch had arrived on his second trip to France at the beginning of October 1889,⁸⁴⁵ and by early 1890 was resident at St. Cloud just outside Paris. This initial meeting between the two men was an auspicious one in the sense that it marked the beginning of an enduring friendship which ceased only with Delius' death in 1934.

Munch's childhood and upbringing had been neither as fortunate nor as secure as Delius', Munch losing both his mother and his elder sister Sophie to tuberculosis when he was respectively four and thirteen years old. Later, in 1895, his younger brother Andreas died of pneumonia. In addition, there was also a history of insanity in the Munch family, a condition which threatened his father, Christian Munch, and to which his younger sister Laura succumbed, and who was institutionalized in 1892. Of Munch's four siblings, only his youngest sister, Inger Marie, survived him, dying in 1952. Munch was aware that these traumatic family circumstances deeply affected his own personality and the course of his own artistic development, he himself suffering fits of depression and paranoia, coupled with

⁸⁴¹. Délius et Papus p. 212: Thus a composer, whenever he develops ideas which involve principles of action within the Universe must abide by the teachings of Hermetism: – to the correspondences which we have just explained.

⁸⁴². See Carley (1975) p. 34.

⁸⁴³. Delius seems more likely to have been interested in ideas of correspondence and emanation, whilst Papus would have supplied the Kabbalistic framework. Regarding the emanations as symbolized by the four characters of the Tetragrammaton, G. Mallary Masters confirms the interesting point that they 'manifest themselves universally in tetrads: the four worlds all have tetradic structures' (He then goes on to describe the fourfold nature of each of the four worlds – Mallary Masters p.137) Seen from the aspect of the Kabbala, the four-within-four-tetrad layout of the Delius and Papus orchestra would be seen as being a 'reflection' or 'image' on the physical plane, of these divine worlds, whilst at the same time (and by a process of recurring emanation) as having ultimately originated from them.

⁸⁴⁴. See Boulton Smith p. 20.

⁸⁴⁵. Munch had previously visited Paris during Spring 1885 (Prideaux pp. 54 – 57).

bouts of alcoholism which culminated in his admission for psychiatric treatment in Copenhagen in 1908.⁸⁴⁶

Although Delius himself may have been little influenced by the Expressionist movement in art,⁸⁴⁷ he was witness, through Munch, to its inception and growth *via* one of its most influential progenitors. During the early 1890s, for example, Munch had painted *Anxiety* (1894), *Melancholy* (1892 or 94), *Vampire* and *The Scream* (both 1893).

Munch and Spiritualism: The Munch scholar Arne Eggum has outlined details of Munch's exposure to and knowledge of spiritualism and discusses the influence of spiritualist beliefs in Munch's art.⁸⁴⁸ Also, Munch's close friend of his Berlin years Stanisław Przybyszewski⁸⁴⁹ relates how he lent Munch a copy of Alexander Aksakov's *Animismus und Spiritismus* and how he 'positively devoured it during the course of one evening.' The book deals thoroughly with the phenomenon of spiritualist photography.⁸⁵⁰

From the evidence of Munch's own writing it seems clear that he accepted the idea of survival after death in spirit form, or at least remained open to the belief.⁸⁵¹

Zum Schwarzen Ferkel was the name attached to the group, largely of writers and artists, who, from November 1892, met at a Berlin tavern nick-named by Strindberg *At the Black Pig*. Members included two of Delius' authors Gunnar Heiberg and Holger Drachman⁸⁵² as well as Strindberg, Przybyszewski and Munch himself.⁸⁵³ Of the total of sixty or so members,

846. See Monroe Chapter 3. Munch may have experienced several earlier psychotic episodes as he was known to have entered sanatoriums in Norway and Switzerland as well as spas in Germany. However, his exact reasons for doing so are unknown or unconfirmed (Monroe *ibid.* p. 73 and p. 90).

847. Michel Fleury suggests that the depiction of the funeral procession carrying Erik's body in Picture 8 of *Fennimore and Gerda* approaches the mood of expressionist art, the music itself being likened to a warped and acerbic version of the processional in *Parsifal*. Also, he states: 'elle suggère des images en rapport avec ce que Edvard Munch a peint de plus sombre et plus macabre' 'it [the procession] conjures up images similar to [some of] the more sombre and macabre paintings of Edvard Munch' – Fleury, 2014 p. 153].

848. Eggum Chapter 2 pp. 29 – 36 "*The Sick Child* and Spiritualist Photography."

849. See Lathe p. 272.

850. Przybyszewski quoted in Eggum Chapter 4 p. 61.

851. 'Had we possessed other eyes, we could have seen our outer, flickering aura –and we would have had a different shape. There is no reason why other creatures with lighter, more solvent molecules, may not move around like us, The souls of our loved ones - e.g. spirits' [from Munch's journal – undated entry quoted in Munch & Tøjner p. 108].

852. In 1897, Delius wrote the incidental music for Gunnar Heiberg's drama *Folkeraadet*. Holger Drachmann was the poet of several Delius songs including the orchestral *Sakuntala* (1889) as well as *Sommer I Gurre* (1902).

853. For a full list of members see Lathe p.30.

Carla Lathe considers Przybyszewski to have been closest to Munch.⁸⁵⁴ Przybyszewski had arrived in Berlin initially to study architecture, later changing to neurology 'in his wish to study the unconscious.' Further discussing Przybyszewski's background Lathe writes: 'In addition to recent psychological research, he swiftly assimilated a knowledge of occultism, medieval mysticism and witchcraft'. Przybyszewski himself confirms Munch's interest in occultism at this time⁸⁵⁵ whilst both men also shared an interest in telepathy.⁸⁵⁶

Max Dauthendey, a German poet and author, was another member of the group. His monistic⁸⁵⁷ outlook, first laid out in his book *Verdensaltet* (1893)⁸⁵⁸ contrasted sharply with the views of Strindberg and Przybyszewski, who believed in 'the old idea of the ego' which Dauthendey opposed.⁸⁵⁹ Dauthendey conceived the 'entire universe to be a single great flux' and that Man, far from being an exalted being, is only an accidental combination of atoms.⁸⁶⁰ 'He assumed that the purpose of art was to communicate intimate disclosures from the world of nature to man. The mystic centre was not the "Geist" or religion or the Dionysian, but Nature, eternally changing, eternally creative. Dauthendey thought human beings were an unimportant link in the chain of nature. They merely changed form when they died. Their eternal life was nature and the poet's task was not to oppose it but to develop his faculty for understanding the emotional language of the universe. . . .⁸⁶¹ Dauthendey thought that

854. See Lathe p. 272.

855. Przybyszewski quoted in Eggum Chapter 4 p. 61.

856. 'Przybyszewski [. . .] believed firmly in telepathy and secret lines of communication. Munch was himself fascinated by the notion that the air was loaded with streams of different descriptions, some like telegraph lines, or radio waves, some silent rays of communication from a powerful brain, a sort of cerebral fluid. Munch and Przybyszewski thought they could practise telepathy together' (Lathe p. 322). Delius was also interested in telepathy, for example, Munch reminisces in a letter to Delius written in 1929: 'Do you remember how we [. . .] talked over thirty years ago about [. . .] the transparency of the body and telepathy – It was what we have now X - rays and radio and the wonderful waves which connect the whole world and the whole stellar system with us' - (Carley, 1988 p. 345). Similarly, and as mentioned above, Jutta Bell in her book *The Revelation of Man* dwells on the idea of all-pervading waves, connecting everything, and permeating the entire cosmos, (see especially chapters I and III of that book), suggesting perhaps that Delius had introduced her to her fellow Norwegian Edvard Munch or to other members of the Delius circle whilst she was living in Paris.

857. *Monism*: the philosophical viewpoint that everything derives from a single substance only. The idea was prevalent in ancient Greek and Indian religious philosophy, whilst its main modern exponents include Spinoza, Hegel and the nineteenth century biologist-philosopher Ernst Haeckel.

858. Originally written in German as *Weltall, die Kunst des Intimen, die Kunst des Erhabenen* [Universe: the art of the intimate, the art of the sublime] it was subsequently published in 1893 in Danish by A. Christiansen's Kunstforlag as *Verdenaltet, Det nye sublime i Kunsten* [The Universe, the new sublime in art].

859. Lathe p. 214.

860. Wendt pp. 54 – 55.

861. Lathe p. 117.

Munch illustrated his own belief in universal equality and harmony between phenomena and Lathe concurs with this view: 'Munch was certainly interested in monism.'⁸⁶²

During 1896 – 1897, Dauthendey lived in Paris where he frequently dined at Mme Charlotte's Cr merie in the rue de la Grande Chaumi re seeing his old friends from Berlin, Munch and Strindberg, daily.⁸⁶³ Although Dauthendey's name appears to be absent from the Delius literature, it seems likely that Delius may also have known him, and if so, would have found his views particularly congenial.⁸⁶⁴ Dauthendey was also interested in various facets of occultism, as detailed in his autobiographical writings.⁸⁶⁵

In summarizing the available evidence on Munch's personal beliefs, Alfred B e remarks 'Munch seems never to have developed a fully cohesive philosophical system' and states that 'notes and writings from different periods of Munch's life indicate that such problems [rebirth, pantheism and the cycle of birth and death in nature] continued to preoccupy him. All of them reinforce our picture of an agnostic who under a variety of influences never ceased to grapple with the greatest mysteries of life.'⁸⁶⁶

August Strindberg (1849 – 1912)

Among Delius' circle of friends in Paris, August Strindberg remains the most prominent expatriate figure known to have been involved in esoterism and occult practice. As with Edvard Munch, Strindberg had a difficult relationship with his father, and there was also a

⁸⁶². Lathe p. 339. Further evidence of Munch's tendency towards monism comes from his own writing at St. Cloud. In a passage reminiscent of Richard Jefferies, he writes: 'Then suddenly it turned very mild and spring-like. I went up to the top of the hill and enjoyed the soft air and sun. The sun warmed, yet now again a cool breath of wind blew – like the air from a burial chamber. The damp earth steamed – it smelt of rotten leaves –and how quiet it was around me. Then I seemed to feel how the damp earth with those rotting leaves fermented and was filled with life – even the naked branches. [. . .] I felt the greatest pleasure in knowing that I would be returned to this earth – this always fermenting earth – always to be shone upon by this living sun – alive. I would be at one with it – and out of my rotting corpse would grow plants and trees and grass and plants and flowers and the sun would warm them, and I would be a part of them and nothing would perish –that is eternity.' [text quoted in Munch & T jner pp. 91 –92].

⁸⁶³. Dauthendey (1913) Chapter 25.

⁸⁶⁴. Dauthendey was a disciple of, and greatly influenced by the Danish scientist and author Jens Peter Jacobsen (1847 – 1885) who was also one of Delius' main influences (*cf.* Wendt p. 51 (footnote), and p. 118: 'This novel [*viz.* Dauthendey's *Josa Gerth*] strikingly resembles Jens Peter Jacobsen's Nils Lyhne. Dauthendey's admiration for Jens Peter Jacobsen amounted almost to idolatry.'

⁸⁶⁵. Dauthendey (1912) and (1913).

⁸⁶⁶. B e p. 29.

history of mental instability within the family, mental illness afflicting two of Strindberg's siblings as well as both Strindberg himself and his daughter Kerstin.⁸⁶⁷ During 1894 – 96, in a period known as the *Inferno Crisis*, Strindberg suffered a series of acute psychotic episodes⁸⁶⁸ which have been widely scrutinized by psychiatrists as well as mainstream Strindberg scholars.⁸⁶⁹ In mid-August 1894, immediately following the first of these crises, Strindberg had moved from Austria⁸⁷⁰ to Paris where, by late 1894 or early 1895, he was living in the Montparnasse district where he began to frequent Madame Charlotte's *Crémérie* in the rue de la Grande Chaumière and Gauguin's and the Molards' studios in the rue Vercingétorix.⁸⁷¹ During much of his time in Paris, Strindberg wrote no new stage works, only returning to the theatre with *To Damascus* Part I, written between January and March 1898.⁸⁷² According to Brandell, the actual 'turning point' in Strindberg's mental health had begun during the Spring of 1897, when he had made a study of some key writings of the Swedish mystic Emmanuel Swedenborg (1688 – 1772).^{873, 874}

Delius first met Strindberg at the Molards' in rue Vercingétorix, most likely by late 1894 or early 1895 and, despite Strindberg's difficult personality, seems to have remained on friendly terms with him. In a short memorandum on Strindberg, written in 1920, Delius recalls taking him for afternoon walks in Paris, on itineraries which included the Luxembourg Gardens or the *Jardin des Plantes*, and sometimes lunching with Strindberg and Gauguin at the *Crémérie*. Delius also took an interest in Strindberg's chemical and alchemical experiments, helping

867. Monroe p. 100.

868. Brandell, p.75, describes five such episodes viz. *First*: July – August 1894, *Second*: December – January 1894 – 1895, *Third*: December – January 1895 – 1896, *Fourth*: June – July 1896, and *Fifth*: November 1896.

869. For details of the various psychopathological assessments of Strindberg carried out up to 2005 see Robinson (2008) vol. 3 section S. For a critical summary of their impact on Strindberg reception and scholarship see Ulf Olsson (2002) and Carlson pp. 261 – 264.

870. Strindberg had been staying in Austria with his second wife Frida Uhl.

871. Carley: *Letters I* p. 78

872. Other important works written during this recovery period included: *Inferno* (May 3rd – June 25th, 1897); *Légende* (September 22nd – October 17th, 1897), *Jakob brottas* [Jacob Wrestles] (November – December 1897).

873. The works of Swedenborg known to have been read by Strindberg during this period were: *Heaven and Hell* and *The Planets in our Solar System*, both in Pernety's French translation (read by Strindberg in September 1896), and *Arcana coelestia* [Secrets of Heaven] read in December 1896 whilst in Lund, Sweden. *Arcana coelestia* is a main source for Swedenborg's account of his 'theory of correspondences'.

874. Towards the end of 1896 Strindberg had read two books from Balzac's *Comédie Humaine* – *Louis Lambert* (1832) and *Séraphita* (1835). Both works contain popularized versions of Swedenborg's ideas, and may have been the main stimulus in influencing Strindberg's study of Swedenborg (cf. Carlson p. 227, p. 233). Delius may also have read *Louis Lambert* since the title is jotted down in his *Red Notebook* together with two other Balzac novels, *Eugénie Grandet* (1833) and *Père Goriot* (1835). Entries in *The Red Notebook* date from around 1887 to about 1891 (see Lowe 1981 p. 222).

him with the costs of chemical analysis on one occasion.⁸⁷⁵ Strindberg and Delius did not see each other again after early June 1896, when Delius left France for Scandinavia. Strindberg himself left for Sweden and Austria the following month, only returning to Paris in August 1897, by which time Delius had already departed Paris to live in Grez-sur-Loing.⁸⁷⁶

Brandell (1974) has outlined the trajectory of Strindberg's changing world view over the course of his lifetime: during the period Delius knew him, Strindberg was heavily involved in chemical and alchemical experimentation, also becoming acquainted with members of the Paris occultist circles and their writings. Several aspects of Strindberg's thought and outlook at that time are relevant to a discussion of Delius' own interests and development. These include:

Monism. Strindberg's initial viewpoint or perspective at this time was that of a monist, *i.e.* he held that the cosmos resulted from a single original (transmutable) substance or entity. Brandell suggests that Ernst Haeckel, one of the most important instigators of monist thought in 19th century Germany, had been Strindberg's main source of inspiration,⁸⁷⁷ but it is also likely that Strindberg underwent exposure to monist ideas at the time of his move to Germany in October 1892, where he spent his initial six weeks at Friederichshagen just outside of Berlin, the home of the influential monist movement the "Friedrichshagener" writers to which his hosts Ola and Laura Hansson belonged.⁸⁷⁸ Strindberg subsequently

875. Carley (1983) pp. 103 – 104 (footnote 1).

876. Although Delius was strongly drawn to, and influenced by, several contemporary Scandinavian writers, there is no evidence of his contemplating any of Strindberg's writings as a source of an opera or other vocal text. Delius' position contrasts sharply with composers of the second Viennese school, who were all avid admirers of Strindberg, both of his writings and of his post-*Inferno* world view. Schoenberg's life, during the period *circa* 1909 – 1914, seemed to reflect Strindberg's of the 1890s, both men being inspired by Balzac's *Séraphita* and by Swedenborg's thought, and both turning towards a more traditional religious orthodoxy following a period of atheism or scepticism. The years immediately following Delius and Strindberg's friendship, *i.e.* late 1896 – 1898 which covered the time during which Strindberg wrote, for example, *Jakob brottas* and *Till Damaskus* (and began to study Balzac and Swedenborg – see the main text and footnotes 873 and 874 above), are also critical years in respect of the Strindberg's impact on the second Viennese school, particularly through *Inferno*, *Jakob brottas* and *Till Damaskus*, these two latter works influencing respectively Schoenberg's *Jakobsleiter* and *Die Glückliche Hand* see Robinson (1998) 141 – 142. For further information on Strindberg and the second Viennese school see Gratzner (1993) who covers in detail the reception of Strindberg within the Schoenberg circle (pp. 24 – 33), as well as discussing Berg's large library of Strindberg's works (pp. 33 – 54) and also providing references to discussions of Strindberg in writings and correspondence within the Schoenberg circle (pp. 261 – 267).

877. Brandell p. 164.

878. The four main members of the group were Heinrich Hart (1855 – 1906) and his brother Julius Hart (1859 – 1930) Wilhelm Bölsche (1861 – 1939) and Bruno Wille (1860 – 1928). For information on the Friedrichshagener writers and on Ola Hansson see Lathe pp. 8 – 23 *Einsiedler und Genosse* and E. P. Jacobsen Chapter III *The monist movement of the "Friedrichshagener" writers*.

frequented⁸⁷⁹ the *Zum schwarzen Ferkel* tavern in Berlin where members of the Friedrichshagen group were also regular visitors.⁸⁸⁰ An additional belief held by Strindberg at this time was in *hylozoism*,⁸⁸¹ also probably gained from his study of Haeckel and Herbert Spencer, and which attracted him to the figure of F. Jollivet- Castelot ⁸⁸² a French occultist and alchemist who upheld similar viewpoints to Strindberg on monism and hylozoism. Also, by the time he met Delius, Strindberg, through his long-term interest in occultism and alchemy, would have already been familiar with of the *Theory of Correspondences* as it applies to these pursuits.⁸⁸³ *Alchemy*. Little comment has been made on the fact that Delius' second opera *The Magic Fountain*, an alchemical allegory, was in part composed during the time Delius had first met and befriended Strindberg, nor that this association between the two men extended into the first six months or so of Delius' writing his third opera *Koanga*.⁸⁸⁴ The

879. i.e. between mid-November 1892 to about ?February/?March 1893. Strindberg met his second wife Frida Uhl in early January 1892, and by early May they were married. He spent much of 1893 in Austria with his wife and her family, where between October and November 1893 he wrote his essay *Antibarbarus* in which he declared himself to be a "monist".

880. These included Heinrich and Julius Hart, Wilhelm Bölsche, and Ola Hansson. Strindberg had also first met Edvard Munch at *Zum schwarzen Ferkel*. Strindberg met Max Dauthendey, another writer strongly influenced by monist beliefs, initially at Friedrichshagen and subsequently at *Zum schwarzen Ferkel* and later at Madame Charlotte's *Crémérie* in Paris (see the above section on Munch, also Meyer p. 258, and Lathe p. 30)

881. *Hylozoism*, 'in philosophy, any system that views all matter as alive, either in itself or by participation in the operation of a world soul or some similar principle.' (<http://www.britannica.com> accessed 13.07.2014.)

882. François Jollivet-Castelot (1874- 1937) founded the *Société alchimique de France* and its organ *l'Hyperchimie* in August 1896. He was a close friend of two major contemporary figures in Paris occultism, *Papus* (Gérard Encausse – see above), and *Stanislas de Guaita* (1861-1897). Strindberg had been inspired to write to Jollivet-Castelot through reading the latter's book *La Vie et l'Ame de la Matière* (1893) and it was also Jollivet-Castelot who subsequently became Strindberg's mentor in alchemy during the next few years when Strindberg also contributed several articles to *l'Hyperchimie* and *l'Initiation*. For Strindberg's correspondence with Jollivet-Castelot see Strindberg (1998) *Correspondance alchimique*. For a list of Strindberg's writings between 1893 – 1898 see Brandell pp. 315 – 325.

883. Strindberg's known interest in occultism dates from 1876 when he borrowed books on the subject from the Royal Library, Stockholm (see Carlson p. 191). The 1883 novella *Development* [not seen] also displays, according to Carlson, a knowledge of alchemical ideas and experimentation (Carlson *loc. cit*). Brandell rather rejects the idea that Strindberg's notion of correspondence derives from Neoplatonism *via* Swedenborg's writings (especially *Arcana coelestia*). Other possible sources of Strindberg's correspondence theory such as occultism or symbolism are not discussed by him, however (Brandell p. 217). As regards occultism as a probable source, Strindberg himself, before he had read Swedenborg, had already studied the writings of de Guaita and Papus including the latter's *Traité élémentaire de Science Occulte*, where the second of the three main principles of Hermetic thought is defined as: *L'existence de Correspondances unissant intimement toutes les portions de l'Univers visible et invisible* [The existence of correspondences closely connecting all parts of the Universe both visible and invisible] – (Papus 1888, from the chapter entitled *La Tri-Unité, les Correspondances et l'Analogie*). However, Strindberg's ideas on correspondence also approach closely some aspects of the French symbolist viewpoint, in that correspondence is normally seen to operate more at a *horizontal level*, (as, for example, between ideas and objects, or between different sensory perceptions at the level of everyday reality) rather than between successive physical and metaphysical levels in a *vertical* or *ascending* hierarchically disposed universe (such as was proposed by Swedenborg and the Neoplatonists).

884. The approximate dates of composition of *The Magic Fountain* lay between mid-1894 and mid-1895, whilst those for *Koanga* were between early February 1896 and early 1897.

fact that both Delius and Strindberg were already both strongly attracted to alchemy when they first met⁸⁸⁵ would be likely to have been a major influence in establishing their friendship. Brandell makes an interesting comparison between Strindberg's and his mentor Jollivet-Castelot's perspectives on alchemy: Strindberg regarded alchemy from the standpoint of scientific or Darwinian naturalism whilst Castelot-Jollivet's point of view stemmed from the belief that alchemy, as an hermetic pursuit, was intimately connected with *acquiring magical powers*, to be attained through *long-term training*, and an *ascetic life style*. Of the most important qualities a magician-chemist must develop, the *Will* is the most essential. In addition, alchemy 'involves not just the production of gold, but also the acquisition of absolute magical power over the forces of nature.'⁸⁸⁶ A perusal of the text of the *The Magic Fountain* shows that Delius held almost identical views to Jollivet-Castelot and not to Strindberg.⁸⁸⁷ The similarity between Delius and Jollivet-Castelot's views could have resulted from direct personal contact and/or have represented the general view held within Paris occultist circles, therefore. In addition, Delius' (and probably also Jollivet-Castelot) were in part inspired by Bulwer-Lytton's *Zanoni* a book which Strindberg himself later read and admired.⁸⁸⁸ The texts of both *The Magic Fountain* and *Koanga* are influenced by *Zanoni*, *The Magic Fountain* heavily so (Chapters 5 and 6).

Envoûtement: the topic of *envoûtement* has already been discussed in connection with the text of *Koanga* (Chapter 6). Because of Strindberg's own intense feelings of persecution and paranoia during his Inferno crisis, it seems inevitable that he would become interested in the subject of *envoûtement* and imagine at some stage that he was a victim of such practice. From the occult references he appended to *Inferno*,⁸⁸⁹ Strindberg had studied de Guaïta's *Essais des Sciences Maudites – II. Le Serpent de Genèse* which contains a scholarly account of *envoûtement* and more particularly the account of *envoûtement* practice and voodoo ceremony in the West

885. Sir Thomas Beecham's assumption (Beecham p. 62) that Delius' interest in alchemy was acquired only under Strindberg's influence is mistaken: Delius's absorption in alchemical thought dates from at least 1890 – 1892, when alchemical symbolism formed the allegorical underlay of his first opera *Irmelin* (see Chapter 4). Bulwer Lytton's *Zanoni*, which Delius had already read by early 1888, may have proved a vital source in initiating his interest.

886. Brandell pp. 196 – 19

887. See Act I of *The Magic Fountain*, where the topics of the magician's will, his control over the forces of nature, and his correct training and motivation, are all covered within the text. From every aspect, however, the hero of the opera, Solano, remains unqualified to fulfil his quest for the Magic Fountain/*elixir vitae*.

888. Michael Meyer, one of Strindberg's biographers, suggests Strindberg read *Zanoni* on Delius' recommendation see Meyer p. 364.

889. Strindberg's bibliography which he appended to *Inferno* is included, for example, in Strindberg and Sprinchorn (1968) pp. 283 – 284.

Indies already referred to in Chapter 6. Thus Strindberg may very plausibly have been familiar with this passage and had brought it to the attention of Delius during the latter's planning of the plot of *Koanga*. That C. F. Keary also played an original hand in creating the events of *Koanga* Act III cannot be discounted however, as part of the voodoo ceremony derives from his short story *The Four Students* (Chapter 6).

Spiritualism. Delius' and Julien Leclercq's prank on Strindberg in which Strindberg had been 'set up' by them in a faked spiritualist séance is described in Delius (1920). Delius' sister Clare also implies that such prankish behaviour by her brother towards Strindberg had occurred on more than one occasion.⁸⁹⁰ However, both Delius and Strindberg were sceptical in matters of spiritualist phenomena,⁸⁹¹ so that the ruse could have been intended more as a jest than as a somewhat cruel joke made at Strindberg's expense.

Hallucinatory Experiences. Strindberg believed he was subject to auditory hallucination, especially during his Inferno period. His 'hearing' of Schumann's *Aufschwung* being played repeatedly at a time when he feared attack by his former friend Przybyszewski (an accomplished pianist) is probably the best-known example. Prideaux also relates various other experiences including frightening visual hallucinations to which Strindberg was subject.⁸⁹²

Extra Sensory Perception. Frida Uhl, Strindberg's second wife, describes some notable and disturbing instances of Strindberg's apparent precognitive and telepathic abilities, which clearly upset her.⁸⁹³ Several sources ascribe or imply somewhat similar abilities to Delius, and suggest that, within Delius' circle of friends, there was a strong interest in these types of phenomena.

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^{890.} See Clare Delius p. 108.

^{891.} Strindberg had attended séances in Stockholm as early as 1884, when he was suspicious that fraud was involved. According to Carlson, he only became somewhat sympathetic towards spiritualism in 1897 (*i.e. after* his association with Delius) and after reading Allan Kardec's *le Livre des Esprits* (1857) – see Carlson p. 192 – 93.

^{892.} See Brandell pp. 190 – 191, p. 249, p. 264, and p. 269; Prideaux p. 165 and Monroe p. 106 and p. 110.

^{893.} See Meyer p. 282. Meyer's source is Frida Uhl (1937).

A sense of upward motion, aerial ascent and altitude is an essential quality pervading much of Delius' music. This quality may be found not only in Delius' mountainscapes, but also in many of his remaining works, where symbols of a mental, metaphorical or metaphysical ascent and height are frequent. A similar impulse towards upward movement and elevation is found also in two of Delius' main poets: Friedrich Nietzsche, and Walt Whitman.⁸⁹⁴ It appears, however, that with Delius, this sense was either an innate quality, or had been nurtured at a relatively early age, before he was known to have come under the influence of either author.

When applied in the field of psychology, the term *ascensionism* has been used for this phenomenon; the word itself being coined by the Harvard professor H A Murray (1893 – 1988).⁸⁹⁵ However, significant earlier research in the same area was also undertaken by the French psychotherapist Robert Desoille (1890 – 1966) and the Sorbonne professor Gaston Bachelard (1884 – 1962). It was in his book *L'air et les songes* that Bachelard used the term *psychologie ascensionnelle* (ascensional psychology)⁸⁹⁶ referring to those authors and poets whose writings display this strong sense of, or aspiration towards, an upward movement.⁸⁹⁷ Various facets of an ascensionist psychology may be discerned in Delius' vocal texts and music, as also in his literary influences, his personality and life-style.⁸⁹⁸

Ascensionism in Delius' vocal texts

Texts may be initially divided into two groups, the first where a path of ascent extends

894. For Nietzsche see Bachelard Chapter 5 *Nietzsche et le Psychisme Ascensionnel* and Luke (1978). For examples in Whitman see Chari 1976 pp 66 – 67.

895. The term *ascensionism* is defined by Murray: 'Ascensionism' [...] is the name I have given to the wish to overcome gravity [...] to dance on tiptoe [...] to leap or swing in the air, to climb, to rise, to fly [...] There are also emotional and ideational forms of ascensionism — passionate enthusiasm, rapid elevations of confidence, flights of the imagination, exultation, inflation of spirits, ecstatic mystical up-reachings, poetical and religious — which are likely to be expressed in the imagery of physical ascensionism. The upward thrust of desire may also manifest itself in the cathection of [...] high peaks and mountains, of birds — high-flying hawks and eagles — and of heavenly bodies, especially the sun..(Murray p. 631; ['to cathect' (*psych.*) means 'to invest with mental or emotional energy in a person, an object or idea']).

896. The term *psychologie ascensionnelle* is first introduced by Bachelard on p. 17 of *l'Air et les Songes*.

897. Together with Nietzsche, Bachelard holds up Shelley as a leading exemplar of a *psychologie ascensionnelle* (Bachelard 49 – 65), and later discusses also Verlaine's *Le ciel est, par-dessus le toit*, (a poem set by Delius), as a work of an ascensional nature (Bachelard p. 188). Wiklund considers further examples of authors displaying this instinct towards an upwards movement, including Arthur Koestler and James Joyce (Wiklund pp 154 – 158 and 174 – 192).

898. The topics of ascensionism and ascensional psychology as these apply within the ambit of mysticism and of mystical experience will be taken up again in Chapter 14.

upwards beyond the limits of the Earth's surface, the second pertaining to mountains and mountainscapes, and where a notion of attaining mountain heights may prevail.

Texts belonging to the first group are shown in Figure 13.1 numbers 1 – 11. Settings date from 1885 to the late works *Songs of Farewell* and *Idyll*. Whereas Bjørnson's *Over the Mountains High* (number 1) conveys a sense of mundane escape from a routine existence into the world beyond, the remaining examples suggest perhaps more an ecstatic flight into unknown territories, as typified by the Whitman and Nietzsche settings. In several cases texts have been carefully cut or modified by Delius, to create a tauter sense of upward movement than in the originals. Thus in *O schneller, mein Roß* (number 2) originally a lyric of six stanzas, Delius has set only the first three, breaking off as the poem reaches its point of 'highest ascent.' A similar technique of curtailment has been applied to the setting from Whitman's *Passage to India* (number 10) where the final lines (running from *Cut the hawsers*), have been omitted. That Delius had been very conscious of his pursuit of ascent imagery in his vocal settings becomes evident in one of his last works *Idyll* where lines from six different Whitman poems are melded into a single passage to create a striking example of an ecstatic ascent involving the two lovers of the text (number 11).

Figure 13.1 numbers 12 – 15 show examples of texts in which the ascent is limited to scaling physical (or metaphysical) mountains. In number 12, there is a sense that there is still far to go to attain the distant 'pale mountains', whilst in the two Nietzsche texts (numbers 14 and 15), progress towards the summit of a symbolic mountain has been halted altogether. In *Paa Vidderne* however, there is a strong sense of the protagonist successfully gaining the heights and reaching fulfilment,⁸⁹⁹ and in the extract from the *Requiem* (number 16) the dying man's spirit ascends, in a purely figurative sense, to the mountain peak.

Hermetic Ascent: Two works of Delius in which this notion of rising upwards is strongly represented are the operas *Irmelin* and *The Magic Fountain*. Thus in *Irmelin* the dramatic action is gradually borne 'upwards' as it ascends through the alchemical planetary sequence. In Act III/2, the culmination of the opera is reached with the 'union' of the two lovers, and their symbolic death in the 'Reign of Mars' followed by their rebirth in the 'Reign of the Sun'

899. Significantly, in his second composition on Ibsen's *Paa Vidderne*, the 1892 symphonic poem *Auf dem Hochgebirg* On the High Mountains, Delius has inscribed the final stanza of the poem (in Passarge's German translation) onto the title page of the score: *Nun bin gestählt, ich folg' dem Gebot:/ Ich soll auf der Höhe wandern!/Mein Leben in Tal – für immer tot,/ Hier oben Gott und ein Morgenrot, –/Dort unten tappen die andern!* [Now I am hardened, I follow the call/I must wander in the heights/My life in the valley – gone forever/ Here above – God and the rosy dawn, –/Down there the others just grope!].

(the highest point) which concludes the opera.⁹⁰⁰ In *The Magic Fountain* the ascent is depicted (in Act III) by a climb through Saturn, Jupiter, the Moon and Venus, but with a catastrophic 'fall' and death of the two lovers who are denied entry into the final Sun stage.⁹⁰¹

The ascent formation

A distinctive symbol of ascent in Delius' music is the *ascent formation* where typically a passage of music shows an initial phase of a gradually intensifying energy culminating in a dynamic climax, followed by a 'descending' phase in which the accumulated energy slowly diminishes and dissipates. The two phases of this formation are either in a GS or 2: 1 proportion with each other.⁹⁰² In its most characteristic usage the ascent formation underpins and supports an ascension text, the symbols of ascent in the text and the music both striving upwards together. Early examples in Delius' may be found in the songs *O schneller, mein Roß*⁹⁰³ and *Ein schöner Stern*.⁹⁰⁴ Later examples occur in *A Mass of Life*⁹⁰⁵ and *Songs of Farewell*.⁹⁰⁶ A unique development of this basic ascent formation in Delius occurs in those cases of pattern formation and where the two outer sections A and A' are in GS proportion with each other, and where the A' section in some manner continues or recapitulates the A section whilst both contrast with the intervening B section. The entire B section in this situation then becomes, as it were, an 'expanded GS point' the 'event' which should immediately follow on after the GS point thereby being delayed until after the conclusion of the B section. An example of this type of configuration in Delius was given for *A Song of the High Hills* where the two outer sections 81: 127 bars are in GS proportion, and represent respectively an 'ascent to' and 'descent from' the high plains of the central section.⁹⁰⁷

900. See Chapter 4 text and Figures 4.2 and 4.7.

901. See Chapter 5 text and Figures 5.1 and 5.4.

902. See Chapter 2 text and Figure 2.1.2 numbers 2a and 2b. A rare instance of a 1: 1 ascent formation and climax occurs in the epilogue of *Appalachia* and which runs from bar line 604 at the words *For the dawn will soon be breaking* through to the climax after bar line 629 and with the descent lasting until the final bar in a 25: 25 bar configuration. The 1: 1 structure reflects the 1: 1 nature of the entire work.

903. See Chapter 2 text and Figure 2.11.

904. For the text of the song *Ein schöner Stern* CW volume 18a pp 23 – 24, see Figure 13.1 number 4. The song is 21 bars in length, the ascent beginning from bar line 11 at the start of the second stanza. The climax is at bar line 18 on *lüge* forming a miniature ascent formation of 7: 4 bars.

905. The opening choruses of Parts I and II of *A Mass of Life* both offer examples of ascents texts, and in both the word *Sonne* (sun) immediately follows the climactic GS point of the passage in question (cf. *Irmelin* and *The Magic Fountain* both of which also aspire to the Sun as discussed above). For more information see Chapter 7, the section on *A Mass of Life*, and Figure 13.1 numbers 8 and 9.

906. See the section on *Songs of Farewell* in Chapter 7, and Figures 7.25 – 7.29. The text of Movt III is quoted under 13.1 number 10.

907. Another example occurs in the *Appalachia* variations the primary pattern being 99||492||: 62 bars. The two outer sections are in GS proportion, and enclose the B section which constitutes the variations themselves. The

Where images of physical height and isolation in Delius' mountainscapes can be envisaged as metaphors encompassing general moods of elevated emotion or introspection, or higher levels of dynamism and energy, then this points forward to a more comprehensive overview of a 'dynamic form' based on proportion which underlies many of Delius' works. Thus in the A||B||: A' pattern the 'ascent' and 'descent' phases are represented by respectively A and A' whilst B becomes the contrasting section of heightened emotional, contemplative or dynamic intensity.⁹⁰⁸ Initially, this dynamic form in Delius may be 'heard' 'symmetrically' as an 'arch' formation, whereas in reality the whole structure is asymmetrical or skewed, the irregularity being conferred by the enclosing A and A' sections which are in either GS or 2: 1 proportion with each other. In contrast, the enclosed B section may be completely symmetrical adding to the ambivalence of the overall structure regarding symmetry or asymmetry.

Some leitmotifs and meta-leitmotifs of high altitude

Andrew Boyle⁹⁰⁹ has identified several families of themes and motifs which are found especially in Delius' early musical mountainscapes (*viz.* the two songs *Over the Mountains High* and *Hochgebirgsleben*, the melodrama *Paa Vidderne* and the tone poem *On the Mountains*). Two types of motif reflect moods associated with high upland regions and topography. One of these he termed the *Wilderness Motif*, a second he describes as *a repeating, rolling call around an anchor note*.⁹¹⁰ Also mentioned by Boyle and several other authors is the use of two themes from the 1897 orchestral movement *Over the Hills and Far Away* in *A Mass of Life* Part II/I illustrating the text section beginning *Ein Sommer im Höchsten mit kalten Quellen*⁹¹¹

delayed GS point (at the juncture of the B and A' section, bar line 592) then introduces the baritone solo *O Honey, I am going down the river in the morning!*

908. The B sections of the dynamic patterns discussed are not all necessarily at higher levels of intensity than their enclosing A sections. Thus in Part II of *A Mass of Life*, (Figure 7.8) the innermost point is reached in the closing pages of Movt. III and initial pages of Movt. IV, the whole of part II pivoting on bar line 1266, the 'silent' GS point separating these two passages. A similar inwardness characterises much of the B section of *A Song of the High Hills*, whilst in *Appalachia* the proportioning stems from the overall midpoint of the entire work which also marks the beginning of the *Misterioso* passage of the B section (bar line 327).

909. Andrew Boyle (1984).

910. See Boyle (1984) Chapter 1 section 2 (pp 33 – 68) for further discussion of these and other mountain-inspired motifs. Examples of the two types of motif mentioned above are shown in Figure 13. 2. In example 13.2 no 2.5, (the opening of the orchestral prelude to scene III of *A Village Romeo and Juliet*), the music reflects the Swiss Alps of Gottfried Keller's story, the stage scenario including the description: *small villages perched here and there in the hills. Snow-mountains in the distance.*

911. See Figure 13.1 number 9 for the full text and Figure 13.2 for the opening bars of *Over the Hills and Far Away*. See also Figure 7.10 no 5. Note that the first quotation from *Over the Hills* in the *Mass* is on the word *Höchsten* ('highest') in the phrase *Ein Sommer im Höchsten mit kalten Quellen*/A summer in the highest places with cold springs (bar line 837 (cue 61), in the altos, violins II and violas).

Platonism and Neoplatonism in Bulwer-Lytton's Zanonì: Delius first mentions *Zanonì* in a letter to Grieg written in Brittany in mid-August 1888, where there is a suggestion that he already knew the book from his Leipzig days or earlier. Delius had been working on setting *Zanonì* initially as an opera, but subsequently decided to compose incidental music for his own dramatization of the work. Bulwer-Lytton's *Zanonì* became perhaps the most important initiatory work in the spread of esotericism in nineteenth century Britain and America. It developed an equivalent status in Germany, while in France *Zanonì* also enjoyed high acclaim, particularly with one of the two main neo-Rosicrucian societies *l'Ordre Kabbalistique de la Rose-Croix*, which was established c. May 1888 by Stanislas de Guaita and Joséphin Péladin.⁹¹²

In his detailed analysis of *Zanonì*, Robert Lee Wolff (Wolff, 1971) shows that one of the basic themes of the book is derived from Plato's *Phaedrus* in which the passage of the soul's ascent moves through four stages of divine inspiration: the musical, the 'teletic or mystic' the prophetic, and 'that which belongs to love'.⁹¹³ Intimations of the soul's ascent to 'that which belongs to love' in Platonism are key components of several Delius plots including the concluding pages of *The Magic Fountain* and *Koanga*. It is especially evident in the *Idyll* in the passage indicated above.

Zanonì also abounds in direct references to Neoplatonist thought, including the soul's ascent to higher planes of existence in its process of returning to the 'One':

There is a principle of the soul, superior to all nature, through which we are capable of surpassing the order and systems of the world. When the soul is elevated to natures better than itself, then it is entirely separated from subordinate natures, exchanges this for another life, and, deserting the order of things with which it was connected, links and mingles itself with another (*Zanonì* Book IV, epigraph to chapter 9, the quotation is from Iamblichus – source untraced).

Also expounding both the notions of the soul's ascent and of universal correspondence or cosmic sympathy:

...They fancied an affinity existing among all the works of Nature, and that in the lowliest lay the secret attraction that might conduct them upwards towards the loftiest [author's footnote to this: Agreeably, it would seem,

⁹¹². See Breton, p. 214.

⁹¹³. See Wolff pp 160 – 162.

to the notion of Iamblichus and Plotinus, that the universe is an animal; so that there is sympathy and communication between one part and the other; in the smallest part may be the subtlest nerve, and hence the universal magnetism of Nature. But man contemplates the universe as an animal-cule would an elephant. The animalcule, seeing scarcely the tip of the hoof, would be incapable of comprehending that the trunk belonged to the same creature – that the effect produced upon one extremity would be felt in an instant by the other] (Zanoni: Book VII Chapter IX).

The influence of *Zanoni* on Delius' thought and music of his Paris period appears to have been little recognized, as have also the various links and similarities between Nietzsche's, Bulwer's and Ibsen's ideas, an examination of which may help further delineate Delius' underlying beliefs and outlook during this period.

Ibsen

Heinrich Anz has recently discussed two aspects of Ibsen's writing which contrast, on the one hand, a life of isolation and purity exemplified by withdrawing into mountain heights, and on the other hand, one of everyday human interaction and activity, the 'valley dwellers'. The work in which a life in the mountain heights is perhaps most sharply contrasted as being ultimately preferable to one of everyday familiarity is *Paa Vidderne* a poem which strongly attracted Delius during his Paris years, and which Anz considers to represent 'an underlying basic model for Ibsen's entire output'⁹¹⁴ The impulse for the protagonist of the poem is the 'urge towards self-liberation/personal freedom'⁹¹⁵ — although towards which end, whether aesthetic, creative or metaphysical, is not clear. Interestingly, this basic conflict between 'the ideal and the real' ('real' here meaning an everyday physical reality), is a major strand of Bulwer Lytton's thought, including *Zanoni*,⁹¹⁶ Bulwer's influences stemming most immediately from Schiller and the German romantics.

Nietzsche

In his detailed study on the imagery of height and ascent in Nietzsche, especially in

914.. .ein tragendes Grundmodell für Ibsens gesamtes Werk. (Anz p. 15). Other Ibsen works discussed by Anz in which tension exists between an idealised upland life and an everyday unexceptional reality include *Højjeldsliv/Hochgebirgsleben*, set by Delius in 1888 (see above), and the prose dramas *Brandt* and *Peer Gynt* both of which Delius had also studied (see Carley *Letters I* pp 35 – 36, 41 and 81).

915. *Selbstbefreiungsdrang* (Anz p. 12).

916. For the primacy of the 'ideal' over the 'real' (= representative) in art see Wolff p.162. For Zanoni's rejection of a metaphysical ideal for an ultimate participation in an everyday physical reality see Wolff p. 178. See also Campbell, J. L. (1983).

Also sprach Zarathustra, F. D. Luke lays out the main elements of Nietzsche's thought on the topic of mountains as follows:

- (1) the idea of pure, rarefied, stimulating, uncontaminated mountain air, and
- (2) that of the wide view from the mountain tops; both of these being connected with (3) the idea of an aristocratic élite living 'on the heights' (4) the descent from the heights Also: (5) [...] an especially characteristic use of climbing and mountain imagery occurs in association with Nietzsche's doctrine of the need for self-exploration, self-creation and self-transcendence [Selbstüberwindung].⁹¹⁷

Among several additional images associated with Nietzschean ascensionism Luke lists *dancing* as of primary importance, quoting in this respect a passage also set by Delius in *A Mass of Life* which includes a dance-like section.⁹¹⁸ It will be noticed that in *A Mass of Life* in particular there is a profusion of evidence pointing to Delius as being endowed with a *psychologie ascensionnelle*, and that in addition to the other mountain texts and music already discussed, a large range of Delius works explore dance idioms or include dance movements or dance sections.⁹¹⁹

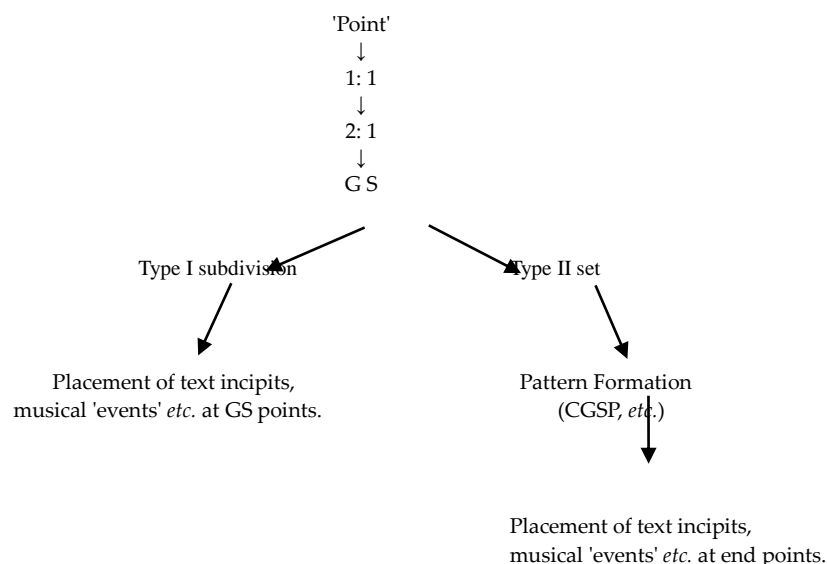
Hierarchy, correspondence, interdependence; Notions of ascent and descent in Delius' proportioning designs

Hierarchy. In considering any concept of 'form' in Delius, the idea of *hierarchy* and *hierarchies of proportion* has proved particularly relevant. From the present writer's own investigations, the uncovering and 'tracking' of such hierarchies in a work or movement should proceed from the 'top' downwards – the construction of valid hierarchies 'upwards' from 'local' analysis and partitioning has been found an unfruitful approach. From this, the construction of descending hierarchies (rather than ascending ones) would have most likely been Delius' own compositional approach. Although there is a degree of variability of technique in Delius' works, most hierarchies would conform, at least in part, to the following general 'top down' scheme:

917. Luke p. 113.

918. 'Lift up your hearts, my brothers, high, higher! And forget not your legs!' *Erhebt eure Herzen, meine Brüder, hoch! höher! Und vergesst mir auch die Beine nicht!* (Nietzsche: *Zarathustra* IV *Vom höheren Menschen* see also *A Mass of Life* Part I/II.

919. However, Delius' developing interest in 'the dance' and ethnic dance forms is evident from his earliest works before any influence of Nietzsche would have been likely to have occurred. Works in this category include *Zum Carnival – Polka* (1885), *Florida Suite – Movts. I and III* (1887), *Hiawatha* (1888 Leipzig, the *Allegretto con moto* section) and *La Quadroone (Une rhapsodie Floridienne)* (1889). Delius first encountered *Also sprach Zarathustra* during a walking tour of Norway (see Fenby p. 171). The date would have been most likely either during the 1889 or 1891 tours, at which time only the first three parts of the book had been published (in 1887). *Also sprach Zarathustra* only appeared in print in its four-part form in March 1892.



Important features of the above general scheme include: Firstly, the process leading downwards passes from unity to bisection (1: 1) and then 2: 1 or 1: 2 (that is '2 in 3 parts' or '1 in 3 parts'), and finally to golden section proportioning. This might be at first regarded *solely* as a move from 'commensurability' to 'incommensurability' or from rational to irrational (*i.e.* golden section) proportioning. However, in Delius' proportioning plans 1: 1 or 2: 1 *divisions* and 2: 1 *hierarchies* often symbolise physical or mental heights and (almost without exception) are placed *above* any GS proportioning in any overall top-down hierarchy.^{920, 921} Similarly, works in which GS has predominated, frequently undergo a 'transmutation' into 2: 1 proportioning towards their conclusion, as previously described.⁹²² Sometimes this aspiration from GS towards 2: 1 occurs in both a vertical and horizontal direction.⁹²³

Correspondence and Interdependence. Delius' more complex designs involving multiple GS

920. An exception to this rule is Movt. IX of *Paa Vidderne* where a 2: 1 hierarchy is constructed within the B section of a switched CGSP, and the Primary Division is also made by GS – see Chapter 2 Figure 2.9.8.

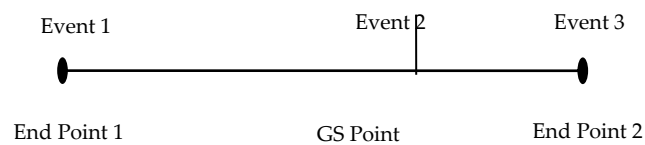
921. Examples include *On the Mountains* (1890 – 92, CE Volume 22) a symphonic poem after Ibsen's *Paa Vidderne* whose proportioning is based on a six-member 2: 1 hierarchy followed by two GS divisions all constructed on the climax at bar line 280. Later examples include *The Song of the High Hills* in which each section of the primary ABA' pattern undergoes a 2: 1 subdivision, with the B section continuing with GS subdivision (Figure 7.14), and *Songs of Farewell* which is based on an overall 2: 1 hierarchy but with individual movements (I, III and V) being subdivided by GS (Figures 7.25 – 7.29). Those cases in which an initial 2: 1 division is made in a work, *but in which a further subdivision and redistribution of the components is then made*, do not generally convey any sense of the Sublime, transcendence *etc.* in the manner of the *Song of the High Hills* and other works quoted here. Works in this second category include *On hearing the first Cuckoo in Spring* (Figure 1.1).

922. For example, *Paa Vidderne* (1888), and *A Mass of Life*.

923. For example, the song cycle *Maud*, and Act III of *Irmelin*. The 'two' *Petites Suites* (1889 & 1890 Figures 3.4.1 – 3.4.3), very probably planned as a continuous single study in proportion, display (in a vertical downwards direction) an overall 1: 1 pattern spanning all eight movements, followed by 2: 1 proportioning (also spanning all eight movements). Taken horizontally, Movts I – V are proportioned 2: 1 with GS at lower levels, whilst Movts VI – VIII move from GS to 2: 1 to 1: 1, GS proportioning having been largely eliminated in Movts. VII & VIII.

patterns, as well as Type I proportioning, tend to establish numbers of pairs of GS compliments or correspondents throughout a work in which each member of a pair is 'remote' from its partner. Thus in an ABA' pattern which spans a complete work, the A section may constitute *e.g.* an opening section of a work, whilst the A' section may comprise a closing 'reprise' section. They are intimately linked in the sense that to maintain the GS proportion between A and A', any alteration of bar number in either section would involve a corresponding alteration in the other member of the pair.

In a similar manner, in a single member of a Type II set, and where the two end points function as quasi GS points:



any movement of musical event 1 would necessitate a corresponding change in the position of event 3 to maintain the GS relationship, and *vice versa*. Likewise, any movement of musical event 2 would involve corresponding shifts in the positions of events 1 or 3, (*i.e.* two events would be re-positioned). From the above, an outline of Delius' 'hierarchical' form may be adumbrated: There is a sense of 'descent' and downwards elaboration from an implied initial point. The first stages of elaboration may include bisection, and then 2: 1 proportioning, with golden section arising at the 'third' level'. Subsequent downward elaboration is generally by GS by the various techniques and formations described. One of the objectives (or consequences) of the GS proportioning is the setting up of an intricate web of complimentary and 'remote' correspondences in GS proportion. Apart from the downwards movement within the hierarchical structure, the elaboration by GS might suggest a creation of 'tension' (and consequently a desired 'upwards return' to resolve this tension, from incommensurability to commensurability). The implied 'return' from GS to commensurability is supported by Delius' practice in individual works, *viz.* of omitting the 2: 1 division from the top of the hierarchy and moving it to the concluding stages of a work by transitioning from GS to 2:1 and 1: 1 proportioning.

In considering Delius' propensity towards hierarchical design, one source of inspiration for such a concept of form was the writings of Adolf Zeising (as already discussed in Chapter 10). However, another immediate (and partly complimentary) influence on Delius which

suggests itself is that of *Neoplatonism*. A major and pervasive influence in Paris and elsewhere during the late nineteenth century, one of the best known and basic precepts of Neoplatonism was that of a hierarchical *emanation* or *procession* (*prohodos*) from the wholly transcendent 'One', or 'Good' into a descending series of *hypostases* (stages or levels) followed by a reversion or 'turning back' (*epistrophē*) and a return to 'The One'. Neoplatonic ideas originated largely from Plotinus (A. D. 204 – 70) and were elaborated by his successors, of whom probably the best known are Iamblichus (died c. 326), and Proclus (412 – 485). The process of emanation and creation of hypostases generated a tension within the Plotinian hierarchy, due to separation from, and the necessity of returning to 'The One.' Jack Lindsay writes:

The ancient world always saw hierarchy or development as coming down by stages from above, not as movement from below upwards. At most the upward-movement was conceivable as a return along the tracks laid down by descending spirit or deity. Thus Neoplatonism was agitated by an inner tension between the notions of unity and of hierarchy, of organic and continuous forces or processes and of a pattern imposed from above by a Monad outside the universe.⁹²⁴

In Delius' models of proportion therefore, this tension between these notions of unity and of hierarchy is symbolised by the *Golden Section*, and an approach or return toward the absolute One by 2: 1 and 1: 1 proportion.

Although appearing under several names (*sympathy*, *analogy*, *correspondence*, *affinity*) the twin concepts of *interdependence* and *correspondence* were also basic principles of Neoplatonic thought:

Three of these [principles] are of outstanding importance [in the structure of Late Neoplatonic Metaphysics].....and thirdly the Principle of Correspondence, the law ...that 'everything is in everything, but in each thing appropriately to its nature.' We may take the last-named principle first, since its significance should be fairly clear from earlier sections. We have seen, in effect, that it could be applied either 'vertically', to signify the implication of the Principle of Plenitude that each Hypostasis expresses the Totality of Being under its own appropriate conditions...or 'horizontally' expressing the fact that each member of a particular Hypostasis mirrors the whole of that Hypostasis (and hence the whole of Reality)... Similarly, for all Neoplatonists every soul, in virtue of its possession of all Logoi, 'is all things, being identical with sensible things as their exemplar...and with Intelligible things as their image...' (Wallis, pp 123 – 124).⁹²⁵

924. Lindsay, p. 23.

925. Thus the impression (often gained from writers on Hermeticism and general Esotericism) that correspondence is a distinguishing and separating feature of Hermeticism (alone) is clearly misleading. However, regarding this point, Siorvanes in his book on Proclus indicates that correspondence in Neoplatonism and Hermetism may have originated or developed to some degree independently:

Sympathy means literally 'having been affected jointly'...The famous concept of cosmic sympathy

In considering Adolf Zeising's concept of a unity leading, by way of the Golden Section, to an ever-increasing multiplicity and comparing this idea to some of the main axioms of Neoplatonic thought, it will be seen that the latter offers a far broader and more expansive perspective in which to interpret Delius' proportioning. Thus, for example, the important principle of *correspondence* in Neoplatonism, critical also to both occultism and the Symbolist movement, is absent from Zeising's writings. Similarly, Delius' ideas of 'return' and of GS being equated with a transitional 'tension' prior to that return align well with Neoplatonic thought but not with Zeising's.

Sources of Neoplatonism for Delius

1. Sir Edward Bulwer-Lytton: *Zanoni* see: *Platonism and Neoplatonism in Zanoni* (above).
2. Ibsen: *Emperor and Galilean*: Ibsen's large-scale historical play was first published in October 1873 but was not performed on stage until December 1896 at Leipzig. Ibsen regarded it as his best work. The emperor referred to in the title is Julian (Flavius Claudius Julianus (ruled 355 – 363), most frequently referred to as 'Julian the Philosopher' or 'Julian the Apostate'. Julian attempted to replace Christianity within the Empire by a paganism based on Neoplatonic (especially Iamblichan) philosophy. Julian's tutor in philosophy and religious matters was Maximus of Ephesus, a pupil of Aedesius, who was in turn Iamblichus' pupil. Maximus appears in Ibsen's play as 'Maximus the Mystic'.
Delius had begun work on writing incidental music to *Emperor and Galilean* by February 1889 – which became his next dramatic project following *Zanoni*. The music is apparently lost. The first section of the play contains a scene in which Maximus invokes spirits whom Julian questions and who prophesy the future. Julian himself is depicted as a visionary, who experiences precognitive dreams – subjects which certainly interested Delius during the 1890s. Invocation is also a dramatic topic of Delius' third opera *Koanga*.
3. For a discussion of *emanation* and *correspondence* in the suggested layout of the orchestra in *Anatomie et Physiologie de l'Orchestre* by Delius and Papus see the section on Papus in Chapter 12.
4. *Post-Impressionist Painters*: Delius first arrived in Paris 6 May 1888, where he stayed

seems to have risen among the early Stoic philosophers and was established by the time of Posidonius (second to first century BC). What complicates the genealogy is that sympathy was also the explanation for magic, astrology, and extra-sensory phenomena. Essential philosophical ideas may be traced to Plato and his view of the cosmos as an integrated living being. However, the association of similarity with sympathy in Neoplatonism is almost certainly due to Plotinus (Siorvanes, p. 64).

initially with his uncle Theodor in the Rue Cambon. By mid-May 1888, Delius was already meeting with a number of artists, but by mid-August he was in Brittany where he remained (based at St. Malo) until late October.⁹²⁶ A number of young painters were working in Brittany at that time (Paul Gauguin and Paul Sérusier first met at Pont Aven during October 1888), but there appears to be no record of Delius having met these or any other artist in Brittany during his stay there in 1888. By April 1890, however, he had got to know William Mollard (1862 – 1937), a French-Scandinavian musician, resident with his wife Ida Ericson (1853 – 1927), a sculptress, in the rue Vercingétorix, Montparnasse. From August 1893, Gauguin was resident firstly in the rue de la Grande Chaumière (where he frequented Madame Charlotte's *Crémérie*), later renting an apartment above the Mollards in the rue Vercingétorix. Paul Sérusier, founder of the *Nabis* group of painters, and interested in techniques of employing proportion and use of the Golden Section, was also a visitor at the rue Vercingétorix.⁹²⁷

The important influence of Neoplatonism on Gauguin and Sérusier and their associates has been discussed by Rookmaaker (1959), Boyle-Turner (1983) and Cheetham (1987; 1991). Whilst Cheetham points to the sometimes broader import of the term 'Neoplatonism' in the late nineteenth century compared to modern-day usage, he goes on to state 'my aim is to show that Neoplatonism [*sensu strictu?*] – with its metaphysics of presence and ontological hierarchy – is central to the articulation of Gauguin's painting.....'⁹²⁸ Cheetham believes that Gauguin's knowledge of Neoplatonism dated from about mid-1888, that is, before he knew either Aurier or Sérusier, ('who were steeped in this ancient philosophy'), and suggests Émile Bernard who 'was well versed in philosophy' and 'whose theories were developed in Neoplatonic terms' was his most likely inspiration.⁹²⁹

Concerning Paul Sérusier, Boyle Turner describes his education at the Lycée Condorcet as follows:

More important for his future career than an artistic exposure during his lycée years [1875 et seq.] was the academic training Sérusier received at the Condorcet: philosophy was the focal point of the entire curriculum, which students were encouraged to study in the original languages. Thus Sérusier.....was encouraged by his philosophy professor, Victor Brochard, to learn Greek so that he could read Plato. Under the tutelage of Brochard, a respected scholar, Sérusier,

926. Letter dated 19th October to Grieg – *see* Oelmann, p. 51.

927. Carley (1975) p. 54; Millroth pp 137 – 139.

928. Cheetham, 1987 p. 20 footnote 3.

929. Cheetham, 1991 p. 18.

enthusiastically read Plotinus' *Enneads* and discovered the concept of neo-Platonism, which would later form the philosophical basis of his artistic theories.⁹³⁰

Jan Verkade, a close friend of Sérusier, wrote of him: 'Endowed with high philosophical gifts, he loved to meditate on metaphysical questions and to discuss them.....and [he] taught likewise the doctrine of reincarnation of the soul, and of its ascent through a series of successive existencies [*sic*] to the Absolute'.⁹³¹

5. *Albert Aurier*⁹³² an influential contemporary critic of symbolism, was the first, in a famous article in *Mercur de France*,⁹³³ to appraise Gauguin and his followers in terms of symbolist theory. That Aurier was also strongly influenced by Neoplatonic thought has been especially emphasized by authors such as Roomaaker and Mathews, the latter writing for instance:

Aurier certainly had a deep understanding of Platonism and Neo-Platonism, especially as interpreted by the third century Greek philosopher Plotinus . . . Plotinus was, in fact, the most important formative element for Aurier's idealism.⁹³⁴

Like Delius, Aurier was keenly interested in alchemy and in occultism ⁹³⁵ and in addition was a close friend of *Julien Leclercq*, a frequenter of the artistic gatherings at the rue Vercingétorix and a colleague of Delius' there. No record of Aurier meeting Delius has been traced, although Leclercq seems likely to have transmitted some of Aurier's views at the rue Vercingétorix gatherings. In addition, Delius may have conceivably met Aurier during his holiday in St Malo in 1888.⁹³⁶

* * * * *

930. See Boyle-Turner, 1983, p. 6)

931. Verkade 1930 p. 62 and p. 79.

932. Albert Aurier (1865 – 1892). His early death at the age of 27 was due to a typhus infection contracted whilst staying in in Marseilles.

933. Aurier, (1891).

934. Mathews (1984) p. 86.

935. See Mathews pp 63 –73 and Juliet Simpson pp 222 – 223, footnote 60.

936. According to Leclercq (cited by Juliet Simpson 1999 p. 62, footnote 127) Aurier and the artist Émile Bernard were both in St. Briac-sur-Mer, in Brittany during August 1888, just a few miles from where Delius was on holiday in St Malo.

Questions of 'mysticism' have often been directed towards both Delius the man⁹³⁷ and to his music.⁹³⁸ It is important, therefore (and because mystical experience often effects a change in world-view, consciousness *etc.*), to examine whether terms such as *mystic* or *mysticism*⁹³⁹ may validly be applied to Delius.

In approaching problems of mysticism and mystical experience in Delius, the *disjecta membra* of what might be termed his 'exceptional experiences'⁹⁴⁰ will first be collated and briefly described. There follows a short summary of the main components of extrovertive mystical experience, the type of experience which is thought to apply to Delius and with which we will be mainly concerned.⁹⁴¹ A more detailed account of Charles Keary's *The Journalist*, in which Delius and mystical experience are strongly linked, is then given, and the chapter concludes with evidence of a mystical awareness in the two of Delius' main authors, Nietzsche and Whitman, followed by some closing observations.

Delius and Exceptional Experience

Trance and Contemplation. From youth, and in natural surroundings, Delius was noted to have entered *trance-like states*.⁹⁴² In addition, whilst in Florida, as a young man, Delius confirmed he had learned the *art of contemplation* from 'sitting and gazing at nature.'⁹⁴³ As is

937. 'In other words, Delius had the temperament of a mystic, one who uses symbols. [...] For the mystic, phenomena are symbols; [...] Debussy's 'Fêtes' is a far more brilliant evocation of its subject than is 'Brigg Fair', but the latter is the work of a seer, a visionary.' Hutchings p. 179.

'Delius was one of those rare uncorrupted minds that see the divinity latent in every form of life. He was a supreme poet, and therefore an ecstatic and a visionary' Christopher Palmer (1981): Notes to 'The Fenby Legacy' Unicorn-Kanchana DKP 9008/9.

'And Delius is, indeed, a pantheistic mystic whose vision has been attained by an all-embracing acceptance, a 'yea-saying' to life' Philip Heseltine (1923/1952) p. 101.

938. 'In his [Sorabji's] opinion Delius was the creator of 'radiant masterpieces' he was a master who could 'express musically the mood of ecstatic and transcendent contemplation which in India they call *Samadhi*.' [Bhimani In Rapoport p. 271 quoting Sorabji in *The New Age* 46 (14 November 1929 p. 20).

'Tovey has written of the 'almost oriental depth of meditation' of the Violin and Double Concertos.' Huber Foss in: Philip Heseltine (1923/1952) p. 143.

939. The terms *mysticism*, *mystical* and *mystic* each convey a range of different meanings and, wherever possible, are avoided here. The phrase *mystical experience* applies to better-defined components within the overall subject of 'mysticism' and is more generally adopted in the present discussion.

940. 'Exceptional Experiences are usually understood as 'deviations from what might be referred to as ordinary experiences, *i.e.* experiences consistent with typical 'reality models' that individuals develop to cope with their socio-cultural environment' See Evrard p. 130.

941. See Stace (1960) Chapter § 5 *Extrovertive Mysticism*.

942. Clare Delius p. 50.

943. Fenby p. 164. Jahoda states Delius' practice of contemplation had begun whilst he was still a child: 'Fritz himself began a habit of meditation about God and the world of nature He had made. This meditation was

well-known, on one occasion, Delius is reputed to have entered into a 'state of rapture' triggered by the sound of African voices singing in the near distance.⁹⁴⁴ Cecil Gray, the composer and critic, on hearing his first Delius performance (*In a Summer Garden* in 1912), sensed in its composer what is termed by mystics a 'state of illumination.'⁹⁴⁵ Gray later questioned Delius about his intuition,⁹⁴⁶ who confirmed to Gray his experience in Florida.⁹⁴⁷ During his final years, possible further *states of trance or complete mental withdrawal* were hinted at by Delius' sister Clare.⁹⁴⁸ These may have been linked to Delius' purported quasi-aural experiences discussed below.

Voice hearing. This phenomenon includes the apparent *hearing of sounds* as well as the more commonly reported *hearing of voices* conveying messages *etc.*⁹⁴⁹ The evidence that Delius was prone to this type of experience is intimated by his sister Clare, and strongly supported in Charles Keary's novel *The Journalist*.

Paranormal experience and extra sensory perception. Delius, together with his sister Clare on one occasion 'saw' a ghost, Delius acknowledging the experience but denying its reality.⁹⁵⁰

Telepathy: Cecil Gray offers a striking example of Delius' telepathic gifts, attributing this faculty to Delius having attained 'the state of illumination' mentioned above.⁹⁵¹ That Delius had had a long-standing interest in telepathy is supported by both Edvard Munch⁹⁵² and Philip Heseltine, correspondence between the latter and Delius also suggesting Delius' unusual abilities in this area.⁹⁵³ *Precognition.* Margaret Vessey cites several instances of precognitive abilities displayed by Delius.⁹⁵⁴

intense and emotional, and he could lose himself in it early when he practised it' – Jahoda 1969 p. 13. This and other information on Delius in Jahoda's *The Road to Samarkand* would have largely derived from Delius' sister Clare and her daughter Margaret Vessey.

944. Gloria Jahoda relates how Delius had a similar 'moment of illumination' while in the mountains above Gudbrandsdalen, Norway in 1924 (Jahoda pp 201 – 203).

945. Gray p. 140.

946. Gray first met Delius in 1918.

947. Gray p. 140.

948. Clare Delius p. 252.

949. *i.e.* when there is *no auditory stimulus*. See Evrard p. 130.

950. Clare Delius p. 108.

951. Gray states, regarding Delius' telepathic abilities, that in addition to the case he cites, that there were 'others like it.' Gray p. 140.

952. See Carley Letters II p. 345.

953. See Barry Smith (2000) letters number 3, 6 and 7.

954. This information was presumably supplied to Margaret by her mother Clare Delius (Clare Black). It should be noted both mother and daughter were deeply interested in matters of parapsychology. However, Delius had also displayed an interest in precognition, confirming with Philip Heseltine on one occasion that one of his African workers at Solano Grove 'possessed the gift of second sight developed to a very high pitch.' Barry Smith 1998 p.67; Gillespie p. 50.

Some characteristics of mystical experience thought most useful in discussing Delius (and one of his fictional correlatives, Richard Vaux in *The Journalist*) are briefly summarized below. These are drawn from several standard references on mysticism.⁹⁵⁵

Charles Keary's fourth novel, *The Journalist*, published in 1898,⁹⁵⁶ gives a valuable account of how mystical experience gradually effects a complete change of outlook and motivation in the main character, Richard Vaux. The plot of *The Journalist* revolves around Richard Vaux, a gifted young writer based in London of the early to mid-1890s whose professional movements are confined to an upper middle-class coterie of writers, critics, and their social milieu. Richard meets Clare Warburton, unhappily married to an officer in the British army, who departs early on for a posting in Burma, leaving Clare in England to join him later. He also meets Sophus Jonsen, an Anglo-Danish playwright. Jonsen, a somewhat disquieting and uncanny figure, who becomes a 'mentor' to Richard, is starkly opposed to the views of Richard's literary circle and harshly critical of British middle-class values and mores. The main theme(s) of the novel might conventionally be identified as the intensifying relationship between Richard and Clare Warburton, Clare becoming Richard's sole

955. *The Unitive Experience*: the subject undergoes feelings of *merging, uniting or being absorbed into infinity, an absolute, or into nature, the cosmos etc.* (see Marshall pp 60 – 64; Merkur chapter 2: *Unitive Experiences and Unitive Thinking*; Maxwell and Tschudin pp 24 – 25). Various types of unitive experience are described, the *solitary self, incorporation, inclusion, identification, etc.* (see Merkur Chapter 2 pp 27 – 34). A sense of *time standing still, time disappearing, or timelessness* are often a part of the unitive experience. (see examples in Maxwell and Tschudin pages 18, 47, 60, 61, 73, 108 and 135). A *sense of presence* either of *deity* or of other *non-human entities* may occur (see Beardsworth chapter 5; Sidgewick *et al.* p. 85 *et seq.*). *Expanding consciousness*: especially in the *incorporative and inclusive* unitive experiences the subject may feel his consciousness *expanding or as having expanded* either terrestrially, or frequently to the sun, stars, cosmos *etc* (see Marshall pp 76 – 78; Coxhead 86 – 88). A loss of any sense of self or ego is frequently described. . [The] Self disappears with [a] full merging/unity with [the] all [...]; [the] complete disappearance of [the] self [is the] primary characteristic of [the] experience' see Jordan Paper p. 4 (words in square brackets added for clarity).

Visual and auditory phenomena: the subject may be prone to *visions* (Marshall pp 68 – 71; Hardy pp 32 – 34; Underhill chapter 5; Beardsworth pp 1 – 14), and to the *hearing of voices* (Evrard, R.; Underhill Chapter 5; Leudar & Thomas; Hardy pp 39 – 42).

Extra sensory perception: Reports of powers of *telepathy* (Hardy pp 44 – 45; Marshall pp 78 – 79) and *precognition* (Hardy pp 45 – 46) are often associated with mystical experience.

Transformation of surroundings: the environment may become *transfigured* sometimes appearing illuminated or individual objects may appear so transformed (Beardsworth pp 15 – 29 and 81 – 88; Hardy pp 38 – 39). Everything in the environment may literally appear to 'be alive' (Irina Starr quoted in Coxhead pp 40 – 42).

After effects of mystical experience: immediate effects include feelings of peace, unity, bliss *etc.* and 'an understanding that what was experienced was more real/important than any prior experience (Jordan Paper p. 4). The subject may feel disorientated, the everyday world now seeming 'clumsy', 'unreal' *etc.* Longer term effects may include *memorability* – the subject never forgets the experience (Marshall p. 105) – so that he tries to recapture or re-enter the 'supra-mundane' world of the experience. Feelings such as love, or inner contentment may persist long-term, changing the personality of the subject. He may also change his life-style, vocation (Hardy pp 54 – 55). For example, following his experiences in Florida, a new sense of vocation inspired Delius to become a composer (rather than a citrus grower), or religious orientation. He often feels unwilling or hesitant to disclose the experience to others (Maxwell and Tschudin pp 16 – 17; Marshall pp 106 – 107; Jordan Paper p. 5).

956. For more information on Charles Keary see Chapter 12 and Fig 14.1 of the current chapter.

confidante and closest friend, and (to a lesser extent), Sophus Jonsen's power and influence over Richard. However, *The Journalist* is probably unique for its time in that it is primarily concerned with the preliminary and intermediate stages of the mystical experience as these are encountered by the main character, Richard Vaux. The rarity of the novel lies in the fact that Richard's experiences *lie outside the framework of any western religious belief or orthodoxy*,⁹⁵⁷ Richard describing himself as 'not so much irreligious as a pagan' and 'more or less' believing in a future life which 'has nothing essentially to do with a God'⁹⁵⁸ Gradually, fundamental changes occur in Richard's personality and outlook, manifesting themselves as a series of what he terms 'visions and hauntings' – Richard being subject to various visionary episodes. Attendant on these episodes is the sense that natural scenery as well as everyday objects may become 'transfigured' to him.⁹⁵⁹ Similarly, there arises also a sense of loss of distinction between 'good' and 'bad' events, or between the 'beautiful' and the 'ugly'⁹⁶⁰. A perception that he is 'part of' or 'interconnected' with the world about him also arises.⁹⁶¹ The outcome of these experiences leads to a gradual perception of reality as a 'oneness', Richards world-view moving away from any sense of duality.⁹⁶² An important influence on the novel is Ibsen's *Paa Vidderne*, at one point *The Journalist* even parodying its opening lines.^{963,964} This

957. *The Journalist* (1898) thus precedes in time three of the earliest studies in English to cover the topic of secular mysticism viz. Bucke (1902); James (1902) and Underhill (1911).

958. Keary, C. F. *The Journalist* p. 165.

959. 'On Richard Vaux's mind rested still the impress of his last night's vision, and all these things appeared to him half miraculous, as if touched by the finger of destiny' ['all these things' refers to aspects of a rural scene seen at morning time] *ibid.* p.29. 'oh vision undreamt of and beyond the compass of words!' [Richard Vaux's response to his coming upon an inhabited valley in the Odenwald, S. Germany] *ibid.* p. 187.

960. 'The Empire of Man' Dick said to himself one evening. 'That's what it is. Now, I see it all. For there is nothing either good or bad, but thinking makes it so' Thinking could from the dust of the road—the golden dust—raise up a world of fancy *ibid.* p. 260. 'This eternal succession of houses, these unceasing trams were to him symbols not of monotony, or ugliness but of beauty [...] In tune with this imagination he saw in every object he passed, the canary cage suspended in a window, the pewter pot left on the rail, the cat which was sunning itself upon an area step, a hoarding coloured like the rainbow by advertisements, a torn window blind here, a portico there where the plaster was breaking away and showing the bricks beneath, yes, in every object that he passed he saw not ugliness but beauty. Each was the embodiment of some idea, why not say of some *spirit*? So mythopæic had he grown now. Why need one repine that one live in a city if this was so, if, when one saw ugliness, it must come from oneself, not from things outside' *ibid.* pp 264 – 265.

961. (Richard Vaux describing his travels around Landshut in southern Bavaria muses:) 'And you, O lone one, what part,' he said to himself, 'hast thou in all these things?' 'more than a little part, but how I cannot tell,' he answered. *ibid.* p. 91.

962. For example, all sounds of nature combine into a single underlying 'hum in his ear as if from a numerous hive' *ibid.* 91.

963. 'It was morning. Knapsack on back, his pilgrim's staff in hand, he was obeying the voice of the dæmon within him, journeying into the unknown.' (*ibid* p. 185) cf. The opening two lines of *Paa Vidderne* which read: *Nu skræppen over ryggen slænt, / og riften ladte i hånd*, (Ibsen 1908 p. 42) [Now knapsack slung over the back and rifle in hand]. In the Ibsen poem the protagonist is setting out to climb up to the Norwegian high plateaux (*vidder*) in *The Journalist* Richard Vaux sets off to climb a hill in the Odenwald, S.W. Germany.

link infers that Keary (as also Delius) may have interpreted *Paa Vidderne* as a mystical quest (rather than a search in pursuit of an individual or artistic freedom), so aligning Delius' settings of *Paa Vidderne* with other early Delius mystical quests such as *Irmelin* and *The Magic Fountain*. An essential task in assessing the relevance of *The Journalist* to Delius studies rests in the identification of the real-life personalities on whom the fictional characters are based, a task begun originally by the anonymous reviewer of *The Journalist* in *The Athenæum* in 1898⁹⁶⁵ and continued by Lionel Carley in 1983.⁹⁶⁶ In addition to Sophus Jonsen being based on aspects of Delius' personality, the likelihood of *Richard Vaux* being the main Delius figure in *The Journalist* needs close scrutiny. This becomes mandatory since a range of Richard Vaux's personal and family circumstances correspond to those of Delius' during the 1880s and 1890s. Also, 'Delius-as Vaux' might follow-on logically since while 'Jonson-Delius' represents the 'dark side', *alter ego*, or *doppelgänger* of Richard Vaux, 'Vaux-Delius' portrays the complimentary, lighter, boyish, more urbane and humorous side of this dual personality.⁹⁶⁷ Some similarities and parallels between Richard Vaux and Delius are noted below under the headings family members,⁹⁶⁸ family financial strictures,⁹⁶⁹ personal

964. In *The Journalist* Richard Vaux plays the equivalent of the main protagonist and narrator in *Paa Vidderne*, whilst Sophus Jonsen corresponds to the rather sinister figure of the Hunter. Both Jonsen and the Hunter play the role of a forbidding 'spiritual guide' or mentor, weaning their respective protégés away from the everyday into a preternatural existence. In both *Paa Vidderne* and *The Journalist* each mentor figure is finally abandoned by his respective pupil. Possibly also, Clare Warburton partly parallels the protagonist's potential bride in *Paa Vidderne* who, towards the end of the poem, abandons him to marry another. (In *The Journalist* Clare eventually leaves Richard Vaux to join her husband in Burma).

965. See Anon. (1898) *The Athenæum*.

966. See Carley *Letters I* pp 416 – 419.

967. From personal attributes assigned to the main characters in the novel, it seems likely that Keary would, (in addition to Delius), have obtained information from Jutta Bell, who was studying singing in Paris during the mid-1890s.

968. *Family members*: **Richard Vaux** is the second of four brothers, two of whom are reported to be overseas, one in the Straits of Malacca [lying between Peninsular Malaysia and Sumatra] – the second in Canada *The Journalist* p. 115. **Delius**: was the second of three brothers, the remaining two of whom lived overseas. After the elder brother, Ernst Delius had quitted stewardship of the Florida citrus estate c. 1886, he was reported by Heseltine to be in Sumatra – (information presumably supplied by Delius himself to Heseltine – Heseltine p. 43). Delius' younger brother Max was known to have moved to Canada in 1905 where he died from cancer in October of that year. As this event post-dates the publication of *The Journalist* by five years, this suggests that Max possibly had already made a trip to Canada earlier, (or had expressed an intention to move to Canada prior to the publication of *The Journalist*). No information on such a situation occurring has been traced, however. **Richard Vaux's** Uncle Tom is a character rather set apart from the remainder of the Vaux family, and who feels a foreigner in the town he has settled in for the last fifty years – *The Journalist* p. 122. He suffers premonitions and hidden superstitions and experiences a sudden presentiment of his own death *ibid.* pp 122 – 123. **Delius'** Uncle Theodore had left England to settle in Paris. Like Frederick, he differed in temperament from other members of the Delius family. Theodore died in Paris in October 1898, the year of publication of *The Journalist* (see Beecham p. 100).

969. *Family financial strictures*: **Richard Vaux**: Financial difficulties are affecting Mrs. Vaux senior (Richard's mother) due to her late husband's investments 'mother's lost all her money.' The Vaux family intend to sell the family home (*The Journalist* p. 118) but later (p. 237) make alternative financial arrangements. **Delius**: 'His [Delius'] father's business was, furthermore, in deepening trouble'. Carley *Letters I* p. 92 (1895). See also Beecham

characteristics,⁹⁷⁰ travel in Germany,⁹⁷¹ and personal beliefs.⁹⁷²

A second important parallel in *The Journalist* with a real-life personality in the Delius circle would be that of Clare Warburton, who on several counts equates remarkably closely with Jutta Bell.^{973,974}

pp 63 – 64 quoting a letter dated November 29th, 1893 from William Shore to Delius 'Latterly business affairs [of Delius' father Julius] have tended towards utter collapse ...'

970. *Personal details and characteristics*: At the start of *The Journalist* **Richard Vaux** is aged 32 (p. 3 and p. 18) and in his 35th year towards its close (p. 252). These dates tally well with Delius' own perceived age – he was '32' in January 1895 and in his '35th year' from 31.1.97. [Delius' actual birth date was later corrected to 31.1.1862 from 31.1.1863]. **Richard Vaux's love of children**: 'You're very fond of children, aren't you, Mr Vaux?' 'Yes, very' *The Journalist* p. 74. Richard plays with his youngest sister Joe, *ibid.* p. 116 – 117; Richard is also Joe's favourite brother *ibid.* p. 118. **Delius**: 'With children he [Delius] was delightful, playing with them by the hour.' Clare Delius p. 133. 'Though he [Delius] was now nearing sixty he had lost none of his desire to please where the young were concerned.' *ibid.* p. 201. Hubert Foss also confirms Delius' love of children – see Foss in Heseltine p. 18. **Richard Vaux: Pony/horse riding**: Richard Vaux owned a pony as a child *ibid.* p. 72 Connie Baring-Ford to Richard 'you do ride, don't you? 'I used to, when I was in Ireland. But that's ten years ago' *ibid.* p. 247. **Delius**: 'As soon as we were old enough, we were all put upon unbroken ponies [...] Fred, who was always very athletic, was a born rider. Clare Delius p. 26.

971. *Travel in Germany*: In *The Journalist* Chapter XIX, Richard Vaux travels in S. Germany (his itinerary largely in modern-day Baden-Württemberg and Bavaria). He visits successively the Odenwald, Heidelberg, Heilbronn, Stuttgart, Hechingen, the Schwabische Alp, Landshut and Munich. By the time of publication of *The Journalist* in 1898, Delius had already visited Germany several times, most recently Bayreuth and Munich (August 1894), and Elberfeld (Wuppertal) in November 1897. Possibly a trip covering the Baden-Württemberg locations could have been made either in the 1894 or 1897 trips, but if so, this is not recorded in the Delius literature. It should be added that Charles Keary, (by 1888), had also travelled in Germany extensively, including both Baden-Württemberg and Bavaria (see Keary *The Wanderer* Chapters VII, VIII and IX). Keary's quoting of *Paa Vidderne* (a poem much admired by Delius), in connection with Richard Vaux, (see footnotes 27 and 28 above), would seem to link the figure of Richard Vaux, strongly with Delius, however.

972. *Personal beliefs*: For **Richard Vaux's** movement towards a monism or pantheism see the above text. The one clear exception to a pantheistic view is Richard's belief in a possible future life, (*The Journalist* p. 165). **Delius**: Philip Heseltine, writing in 1923, was one of the first to refer to Delius' beliefs in terms of pantheism. 'And Delius is, indeed a pantheistic mystic whose vision has been attained by an all-embracing acceptance [...] to life' (Heseltine p. 101). Delius himself wrote c. 1920 of his own *Requiem*: 'Its under-lying belief is that of a pantheism that insists on the reality of life.' quoted by Clare Delius p. 195.

973. *Clare Warburton and Jutta Bell*: **Clare** sings 'awfully well' (*The Journalist* p. 162), she performs in public and possesses a 'clear contralto voice' (*ibid.* p. 167). **Jutta Bell** had a trained singing voice, studying singing while she lived in Paris, and taught singing for a time when she was based in London with her husband. **Clare** is unhappily married to John Warburton, a Colonel in the British army. Clare eventually leaves Richard Vaux in England to join her husband in Burma. **Jutta Bell** was unhappily married to Charles E. Bell, a captain in the British army (Richmond 1945). Jutta eventually separated from her husband. **Clare**: To her mother-in law's disapproval, Clare is interested in fairy tales *The Journalist* pp 154 – 155. **Delius to Jutta Bell**: 'Please tell me some more fairy tales. I love them as you do, and we might weave something together for our purposes.' (Carley *Letters I* p.86). Jutta Bell also published a volume of stories in folk style (Bell-Ranske 1901). A complex emotional relationship and mutual reliance develops between **Clare Warburton** and **Richard Vaux**, Clare pretending to herself that her strong attraction to Richard is a 'maternal interest' in him only, (in fact she is only two years older than he). **Delius and Jutta Bell**: According to the earlier dating of Delius' birth viz. 29 January 1863 (not 1862) Jutta Bell would have been just over 3 years older than Delius, (in fact, therefore, she was just over 2 years older). **Clare Warburton and Richard Vaux** At one stage, when Richard is in financial difficulties, Clare offers him money, which he refuses– *The Journalist* pp 279 – 280. In a letter from **Delius to Jutta** dated 29th July (18)94, Delius thanks Jutta 'from the bottom of his heart' for her 'generous & friendly offer' of money, but which he declines, adding that 'should I need any I will apply to you with the greatest of confidence' (Carley *Letters I* p. 89). Concerning Richard's psychic experiences, Clare is Richard's only confidante, and the two are generally closely alike in outlook and temperament. The pair eventually break-up, Clare departing for Burma to join her husband. Richard blames himself for this rift due to his own egotistical behaviour towards Clare. **Jutta Bell and Delius**:

Although with further study, *The Journalist* may offer some fresh insights on Delius, particularly on the more amiable and easy-going aspects of Delius' personality, the most significant point to be made here is that *both* Delius characters in *The Journalist* are subject to *exceptional experiences*, and that in addition, writing some thirty-five years later, similar faculties were confirmed as 'true' of Delius himself in Clare Delius' biography of her brother. For instance, Keary's description of Sophus Jonsen:

‘What Jonsen believes it would be impossible to say. But he *sees* things, whether he believes in them or not. ‘Sees ghosts?’ ‘A sort of ghost. And he makes you believe in them for a time.’⁹⁷⁵

is corroborated for Delius himself, in that, together with his sister, Delius 'saw' a figure of a seated man in the library at Foley Hall, (his sister's and her husband's residence) the spectre rising, moving to the drawing-room, and then disappearing through a closed locked door.^{976,977} One might first conclude Delius was playing a prank on his sister, but Delius himself took the matter very seriously, seeking a logical explanation although refusing to credit the ghostly encounter as anything but 'hallucination'.⁹⁷⁸ He was apparently disturbed enough by this event to describe it later in detail to (presumably) either Jutta Bell or to Keary himself. *The Journalist* contains two chapters on ghost sightings including an anecdote concerning a seated ghost in a drawing room.⁹⁷⁹ That Delius was perhaps more open-minded about psychic matters than he pretended to Clare was inferred by Philip Heseltine who had told Viva Smith that ‘Delius at one time had been greatly interested in various occult seances.’⁹⁸⁰

On the same visit to Foley Hall Delius complained that ‘the house was full of extraordinary

Evidence of a close bond and likeness between Jutta Bell and Delius is summarized in Chapter 12. Jutta and her husband Edward Bell had separated by December 1896, Delius writing to her ‘It seems to me that you are infinitely better off separate from Bell — a man so inartistic in feeling & tastes diametrically opposed to yours’ — (Carley *Letters I* p. 110).

974. For further information on Jutta Bell refer to Chapter 12. See also Figure 14.1 of the current chapter.

975. *The Journalist* p. 133. The first time the word ‘sees’ appears in the above quotation, it is italicized in the original.

976. Clare Delius p. 108.

977. Delius had visited Bradford in March of 1889 and 1891, and at Christmas in 1896.

978. Richard Vaux, relating his deceased father's confrontation with a ghost, wryly comments on the topic of ghost sightings ‘my father did once see a ghost apparently.’ ‘Does he himself think it was a ghost? How did he see it? ‘He's dead ... Well, no; nobody ever does admit a ghost, do they?’ *The Journalist* p. 155.

979. See *The Journalist* p. 158. The two chapters in the novel referring to ghostly phenomena are numbers III and XVI. Chapter III covers the situation in which everyday objects may be mistaken for ‘ghosts’ (see *The Journalist* pp 24 – 27), and already indicates Keary's early interest in psychic phenomena. A possible influence on Keary regarding this topic may have been Sidgwick *et al.* pp 94 – 112: *The relation of Illusions to Hallucinations*.

980. Related in Barry Smith (1993).

noises' (presumably, on that occasion, inaudible to Clare) again refusing to counter any explanation other than the mundane cause of 'rats' rats never having been known to dwell in the house.⁹⁸¹ Similarly, Clare describes the singular behaviour of her brother, who when out on walks with her would suddenly stand 'quite still as if drinking something in, his expression becoming wrapped and attentive [...] never explaining what had held his attention for those trance-like moments.'⁹⁸² A final example from Clare Delius comes from her account of Delius in his last years:

Often [...] I have stolen a glance at him. In nine cases out of ten I would catch him in an attitude which remains imprinted in my memory. His head was slightly lifted, as if he were trying to see something with his sightless eyes — almost as if he were listening, not to my voice, but to something I could not hear.⁹⁸³

The above three examples from Clare Delius suggest, although never explicitly so, that she was conveying information that Delius was subject to the hearing of 'sounds' or 'voices' not heard by others. This may seem at first a very unlikely and unsanctioned claim, but again it appears, that Delius proved more interested in the phenomena of clairaudience and voice hearing than he had admitted to Clare. Thus, in his first opera, *Irmelin*, the eponymous heroine is subject to hearing a guiding voice, her Voice in the Air, directing her towards finding her ideal prince.⁹⁸⁴ Similarly, Irmelin's soliloquy, as she sits alone in her bower and enters into a prolonged ecstatic imaginative mood includes lines such as 'What strange sounds fill the air when the sun has gone to rest'⁹⁸⁵ which seem redolent of Delius' hearing the unidentifiable sounds quoted above.⁹⁸⁶ A further point is Delius' hearing of sounds rather than voices in at least one (if not two) of Clare Delius' above examples. Compared to the hearing of voices, the hearing of sounds appears to be a relatively infrequent phenomenon in the 19th – 20th century psychological and para-psychological literature.⁹⁸⁷ In contrast to this trend, the hearing of sounds is basic to the plot of *The Journalist*,⁹⁸⁸ the experience leading

981. For a report on unaccountable 'noises' being associated with hauntings see Sidgwick *et al.* p.340 *et seq.*: *Noises in 'Haunted' Houses*.

982. Clare Delius p. 50. *See also* p. 111.

983. Clare Delius p. 252 (underlining added).

984. *Irmelin*, Acts I and III.

985. Irmelin's long soliloquy which closes Act I of *Irmelin* ends with her hearing her 'Voice in the Air', the whole episode suggesting she had entered some state of rapture or ecstasy. This ending of Act I seems likely to have reflected Delius' own experiences.

986. *Irmelin*, Act I from bar 563.

987. *See* Sidgwick *et al.* Table VII p. 46 and pp 130 – 131, and Hardy *Appendix I* p. 143. In the latter reference, 593 persons of a total 3000 reporting exceptional experiences were subject to auditory phenomena. Of these 593 cases, 87.7% involved quasi-human voices, but only 11.6% heard music of other non-vocal sounds

988. 'the voices of nature, which alone had spoken to him for the last months' (*The Journalist* p. 194) 'The magic of

Richard Vaux to deflect from his conventional life and enter into what is effectively the path of the mystic.

In collating the above notes on Richard Vaux with the standard typologies of mystical experience, it is necessary to confirm initially that Vaux's experiences nearly all fall within the ambit of *extrovertive mystical experience* (EME),⁹⁸⁹ that is to say, the *mind is directed outwards towards the natural world*,⁹⁹⁰ and in some sense interacts with it and is transformed by it.⁹⁹¹ The term *mystical* in the phrase EME implies that the experience brings about *unity, profound knowledge, and a sense of contact with reality*.⁹⁹²

In his recent publication on EME's, Paul Marshall draws up a feature list of the main components of the EME⁹⁹³ and (in consolidating the above view that Richard Vaux and his experiences are based on Delius) it will be of benefit to compare these experiences with Marshall's and other writers on mysticism own perspectives:

A sense of Presence,⁹⁹⁴ *A sacred Presence not called God*.⁹⁹⁵ Marshall writes: 'Subjects may gain the impression that a personal being is in the vicinity, even though no one can be seen [...]. When used impersonally, 'presence' can refer to a life force or power, or to the reality that the subject is beginning to apprehend.'⁹⁹⁶

Compare this description with passages in *The Journalist*:

Thereupon it seemed to him that he heard the tinkling of a silver hammer upon a silver

Dick's journeyings, the magic voices did not die away after their first days.' (*ibid.* p. 188). 'the very patterns of the carpet became alive. Brushes and combs, needles and thread, as fishing lines, nets, harrows, shares, cornsheaves, crabbed apple trees, these all had their voices: they made a hum in his ear as from a numerous hive' (*ibid.* p. 218). It should be noted firstly, that the word 'voices' used by Richard in these contexts refers to the *sounds* of nature *i.e.* 'voices of nature' *etc.*, secondly these sounds may refer to a normal aural perception of natural sounds, but generally they acquire a magical import and origin, ushering Richard into a world or consciousness beyond his everyday awareness.

989. Apart from Stace (cited above), who originated the term 'extrovertive experience', Marshall also generally uses the same term in his book *Mystical Encounters with the Natural World*. Marshall draws a distinction between the older term *Nature Mysticism* and Stace's *Extrovertive Mysticism*, in that the former applies to experiences occurring only in wilderness and countryside environments, whereas (in addition to experiences occurring amid nature), the latter term applies also to experiences in a wider range of surroundings, such as *urban environments* and may focus on man-made objects, not necessarily designated 'beautiful' Marshall p. 30.

990. Marshall p. 26.

991. *cf.* The *introvertive mystical experience* which is 'purely interior' (Marshall *ibid.*) and eschews the natural world.

992. Marshall *ibid.*

993. See Marshall *ibid.* a complete list (17 items) is given in his Table 1.1 p. 27.

994. See Marshall pp 74 – 76 *Presences and Realities*; Beardsworth pp 116 –128; Sidgwick p. 85 *et seq.*

995. See Maxwell and Tschudin p. 34. *A Sacred Presence not called God*.

996. Marshall p. 74.

anvil; yes, from over there, beyond the dark line of the hill. [...] Now her feet, the actual presence of the goddess, passed over the close-shaven down and paused opposite, betwixt him and the sky.

There face to face with him upon the near hill-side, he felt and knew the august presence, though he could give her no name.⁹⁹⁷

A person whistling along the path by the river! One could whistle then in spite of this infinite something which had fallen around us? [...] Nothing had changed. What possessed him then? [...] Dick's eyes grew wide as if straining to see something advancing through the moonlight [...] what spirit could have been flying at that moment between earth and heaven? What Fate descended near the earth?⁹⁹⁸

Vision;⁹⁹⁹ *Transfiguration*;¹⁰⁰⁰ *Transformation of surroundings*.¹⁰⁰¹ Marshall describes an intense awareness attended by an appreciation of beauty and an intense joy which may be felt especially in the early stages of the transformation of the physical environment.¹⁰⁰² *The Journalist* Chapter XIX relates instances of Richard Vaux experiencing this incipient transformation as he hikes in southern Germany. This type of EME often includes an account of the environment somehow appearing illuminated – Marshall describing in one case a sparkling luminosity, exhibiting point-like concentrations of sparkling light in trees, houses and stones.¹⁰⁰³ Compare this with Richard Vaux, at the end of *The Journalist* recalling his earlier vision in S. Germany:

A turn of thought and the vision came before him of a different scene — of a German valley, of the drops upon the fir-spikes, reflecting ten thousand times the colours of the rainbow¹⁰⁰⁴

Marshall comments that this luminosity may be diffuse or clear, rather than obscuring, quoting one case 'Although there was no mist, the light seemed suddenly white and diffused and I experienced the most incredible sense of oneness.' Colours of this luminosity include white or gold, whilst green is relatively infrequent.¹⁰⁰⁵ Compare Richard Vaux:

Then all changed. A light green mist seemed to have descended with the dew, and to hover among the bare branches. But it did not fade away as

997. *The Journalist* p. 28.

998. *ibid.* p.121.

999. Marshall pp 68 –71.

1000. Rudolf Otto, quoted by Marshall p. 55 'Things are transfigured, becoming 'transparent, luminous, visionary.'

1001. Hardy pp 38 – 39.

1002. Marshall p 69.

1003. Marshall *ibid.*

1004. *The Journalist* p. 307.

1005. Marshall *ibid.*

morning mist fades: it did not fade nor change.¹⁰⁰⁶

Voices:¹⁰⁰⁷ During the 19th and 20th centuries 'Voice Hearing' had been mainly discussed under the three rubrics of religious mystical experience, parapsychology, and psychological disorder. From the late 20th century, however, 'voice hearing' has become increasingly considered under a fourth category *viz.* as a *normally occurring phenomenon* which affects a small proportion of the population *who are both mentally healthy and stable*.¹⁰⁰⁸

In one of the classic accounts of religious mysticism Evelyn Underhill describes three types of 'voice hearing' (auditions) as these occur in Catholic mysticism:¹⁰⁰⁹ An *exterior voice*, which appears to be speaking externally to the subject *and to be heard by the outer ear*; a distinct *interior voice*, perfectly articulate, but recognized as speaking *only within the mind* and an '*immediate*' or *inarticulate voice*, which the auditive mystic knows so well, but finds it difficult to define.¹⁰¹⁰ Examples of these three types all occur in *The Journalist*:

Exterior voice: Vaux stood for a moment leaning upon his window-sill looking out into 'The Silver Night.' The words came to him as spoken from outside himself. Thereupon it seemed to him that he heard the tinkling of a silver hammer upon a silver anvil,¹⁰¹¹

Interior Voice: It was morning. Knapsack on back, his pilgrim's staff in hand, he was obeying the voice of the *dæmon* within him, journeying into the unknown. For many months now an inner command had been more or less distinct: 'You must get away into some other country, to be alone, to think, nay above all to *see*.'¹⁰¹²

Examples of the third type, the '*intermediate*,' inarticulate voice in *The Journalist* are represented by the important phenomenon of Richard's *voices (sounds) of nature* which play a major role in effecting his gradual transformation. Their significance only comes to the fore about mid-way through the novel, when they act as 'guiding voices' (as does the 'interior voice' above), drawing him towards what might be perceived as a 'magical' or 'supra-human' territory lying beyond the mundane:

[Richard on his relationship with Clare Warburton] And so it was always at

1006. *The Journalist* p. 186.

1007. See Maxwell and Tschudin pp 35 – 36; Beardsworth Chapter 2; Hardy pp 39 – 41.

1008. *cf.* the basic tenet of the *Voice Hearing Movement* (founded 1987) which regards voice hearing as a 'meaningful human experience.' For recent comprehensive reviews and bibliographies on the topic of voice hearing see Evrard 2014, Leudar and Thomas 2011 and Daniel Smith 2008. A substantial bibliography is also presented at en.wikipedia.org under *Hearing Voices Movement* (accessed 19.01.2015).

1009. Underhill [1911] 1974.

1010. Underhill Chapter V: *Voices and Visions* — see the section entitled *Audition*.

1011. *The Journalist* p. 28.

1012. *ibid.* p. 185.

Eccleston Square: there alone his questions were silenced. For there he possessed the best of both worlds; by anticipation, as he talked of what he could someday do, or of his emotions and hopes, he possessed that world which beckoned him from afar off, which still spoke in dim voices he could only half understand¹⁰¹³

Richard's voices seem to have their origin variously in everyday natural or in imagined sounds transmuting and ultimately coalescing into a composite 'murmur' or 'hum'

And then—The Voices spake: It was as if at that instance a host of airy imaginings like elves descended the chimney and drew up in squadrons [various sounds are then heard] Bells chimed upon a sunlit hill [...] Brushes and combs, needles and thread [etc. full list quoted above] all had their voices: they made a hum in his ear as from a numerous hive.¹⁰¹⁴

As mentioned above, within auditory EME's this type of experience appears scarce: only one or two instances of an experience which corresponds closely to Richard Vaux's voices have been found, but which lend strong support to the claim that Keary was relating real-life EMEs in his novel.¹⁰¹⁵ Sigurd F. Olson in his autobiographical *The Singing Wilderness* describes the type of experience which gives name to his book:

As I watched and listened, I became conscious of the slow steady hum of millions of insects and through it the calling of the whitethroats and the violin notes of the hermit thrushes. But it all seemed very vague from that height and very far away, and gradually they merged one with another, blending in a great enveloping softness of sound no louder it seemed, than my breathing.[...] Over all was the silence of the wilderness, that sense of oneness which comes only when there are no distracting sights or sounds, when we listen with inward ears and see with inward eyes, when we feel and are aware with our entire beings rather than our senses.¹⁰¹⁶

Gregory Nuckols writes of this passage:

That Olson often experienced the 'singing wilderness' in silence shows that this singing is more than a combination of nature sounds. Instead, listening 'with inner ears' is required. In this unitary experience, Olson found a sense of 'oneness' in perceiving the earth as a whole and in feeling a harmony between his breath and the blended sounds of nature [...]. Olson states that such an experience happens only 'when we listen with inward ears ...when we...are aware with our entire beings rather than our senses' Here he seems to suggest that the singing wilderness does not exist in the realm of the senses, yet neither is it simply thought; the singing wilderness, as described above, is apparently an aspect of the imaginal world, the *anima mundi* or world soul.¹⁰¹⁷

1013. *ibid.* p. 213.

1014. *ibid.* pp 217 – 218.

1015. One incidence of natural sounds acting purely as an *antecedent* or *trigger* to an ensuing EME [and not *part of the EME itself*] has been noted, and which is a case where the subject lists six antecedents conducive to an EME, one of which reads 'A pleasant monotonous sound helped. The singing of cicadas, the wind through pine branches, the lisp of a quiet sea' Maxwell & Tschudin p. 133.

1016. Olson pp 130 – 131.

1017. Nuckols pp 140 – 141.

Murray in enumerating the various forms which ascensionism may take states: 'There are also emotional and ideational forms or ascensionism — [...] exultation, inflation of spirits, *ecstatic mystical upreachings, poetical and religious*—which are likely to be expressed in the imagery of physical ascensionism'. He fails to cite appropriate references pertaining to such cases, however.¹⁰¹⁸ Similarly, Bachelard acknowledges that although a treatment of religious ecstasy would be needed to give a full account of the *psychologie ascensionnelle*, this subject would be outside his own expertise and that such an inclusion would not fit his methodology.¹⁰¹⁹ Nevertheless, even with a limited sample of accounts of EMEs, several cases similar to the phenomenology of ascensionism have been located.

In the first part of his autobiography,¹⁰²⁰ Arthur Koestler describes an experience which was at the same time both ascensionist and EME in character:

One day during the summer holidays, in 1919, I was lying on my back under a blue sky on a hill slope in Buda. My eyes were filled with the unbroken, unending, transparent, complacent, saturated blue above me and I felt a mystic elation – one of those states of spontaneous illumination which are so frequent in childhood [...] In the middle of this beatitude, the paradox of spatial infinity suddenly pieced my brain [...]. You could shoot a super-arrow into the blue with a super-force which could carry it beyond the pull of earth's gravity, past the moon, past the sun's attraction – and what then? It would traverse inter-stellar space, pass other suns, other galaxies [...] – and what then? It would go on and on, past the spiral nebulae, and more galaxies and more spiral nebulae¹⁰²¹

Later, when Koestler had pondered the significance of this 'ascending-arrow' leitmotif (and a second one he termed 'the spiral') he argues:

More than twenty-five years later, when I took up the study of psychology and neurology, I remembered my naïve speculation about the arrow and the spiral, and it occurred to me that they could be regarded as archetypal symbols of two opposite trance-like states of heightened consciousness. In the 'arrow state' consciousness expands towards mystic union with the All-One while the ego is felt to dissolve in the infinite. In the opposite 'spiral state' consciousness contracts, is focused on the self, strives to establish identity between subject and object, to permeate the self with awareness of itself. The ecstasies described by most Christian mystics seem to belong to the former category, whereas certain yoga exercises, aiming at the conscious control of all functions of the body and mind, seem to belong to the spiral state. That there are two opposite types of heightened consciousness or

1018. Murray p. 631, (italics added).

1019. Bachelard p. 21.

1020. Koestler 1954.

1021. *ibid.* p. 35.

contemplative trance, is a hypothesis which I am trying to substantiate in a work now in progress¹⁰²²

Two further extracts will suffice to demonstrate the presence of the *psychologie ascensionelle* or of ascensionist elements in literature pertaining to mysticism:

If you can imagine yourself not as a photographic flash bulb but as the light from that bulb and that the light is sentient, that is the nearest I can get to explaining how I felt at that moment [...] for that brief moment it was as though my whole self was able to expand and to encompass the furthestmost star. It was an influx of a certain knowledge in that one flash, that somewhere in the make-up of the cosmos is a factor which transcends time and distance.¹⁰²³

I looked at the hills, at the dewy grass, and then up through the elm branches to the sky. In a moment all that was behind me, the house, the people, the sounds, seemed to disappear, and to leave me alone. Involuntarily I drew a long breath, then I breathed slowly. My thought, or inner consciousness, went up through the illumined sky, and I was lost in a moment of exaltation.¹⁰²⁴

These two cases are further instances of the phenomenon of *expansion* in extrovertive mystical experience, when the subject's consciousness seems to undergo a rapid or gradual expansion outwards from his immediate surroundings, often into distant reaches of the cosmos.¹⁰²⁵ This 'cosmic expansion' can sometimes be felt as if the entire body or head were expanding in a similar way.¹⁰²⁶ These events all form part of the basic impulse and goal of the mystic – which entails the *dissolution of the personal self or ego*, and a *merging or unification with the cosmos or with an absolute*. A difference which may tentatively be drawn between ascensionist experience and EMEs is that in the latter a metaphysical or mystical goal is implicated, whereas in ascensionism the experience tends to remain 'secular' and generally lacks the necessary impulse or ideal.¹⁰²⁷

In view of the question of mystical experience underpinning Delius' life and work as outlined above, it will be worthwhile briefly to draw attention to instances of mystical content or construct in the texts Delius set. Two of Delius' main poets are discussed here: Nietzsche and Whitman.

1022. *ibid.* p. 56.

1023. Maxwell & Tschudin p.136.

1024. Jefferies pp 68 – 69 (chapter V).

1025. *cf.* Marshall's *incorporative unity* – Marshall p. 61.

1026. Marshall p. 76.

1027. This definition applies to the *current* coverage in the literature on ascensionism and on the *psychologie ascensionelle*.

Since Georges Bataille's 1945 study *sur Nietzsche*,¹⁰²⁸ scholarly work on Nietzsche has increasingly included an acknowledgement of, and problems in recognizing and defining 'mysticism' and 'mystical experience' as these occur in Nietzsche's works, especially in *Also sprach Zarathustra* (Z).¹⁰²⁹ In recent years this impetus has received added stimulus through studies by both western and Asiatic scholars on some close parallels between Asiatic mysticism, especially Buddhism, and Nietzsche's thought.¹⁰³⁰

In *The Other Nietzsche* Joan Stambaugh has described four instances of what she terms the *poetic mystic* in Nietzsche's *Also sprach Zarathustra* describing Zarathustra himself as a 'kind of cosmic figure'.¹⁰³¹ Commenting on 'On the Great Longing'¹⁰³² she writes '*the circumference of circumferences*'¹⁰³³ has the same imagery as in the previous quote [...], comprehensive and encompassing. *The soul reaches out and around to embrace all things, not just symbolically, but quite 'literally.'*¹⁰³⁴ Thus this is a further example of an *expansion of consciousness* experienced by the mystic and described above. In her observations on 'At Noon'¹⁰³⁵ Stambaugh describes Zarathustra entering a trance-like state before going into another unitive experience *i.e.* as he falls into 'the well of eternity' there is an 'abrupt transition to another level or realm.' On emerging from his state, the world has become 'perfect' to Zarathustra,¹⁰³⁶ the term 'perfect' here meaning the world is now perceived in its 'true state'.¹⁰³⁷ In 'The Drunken Song'¹⁰³⁸ the start of another mystical experience is marked with Zarathustra standing still 'like a drunkard.' As with Richard Vaux's EMEs in *The Journalist* above, Zarathustra only *hears* the sounds of the midnight bell arising from the depths, Stambaugh remarks 'This whole experience that now begins is one of *hearing* and *smell*. The customary, over-whelming prevalent mode of experiencing, that of seeing is conspicuously absent. Nothing is seen [...]

1028. Bataille 1945.

1029. See for example the work of Stambaugh, Seung and Tyler Roberts.

1030. See for example Parkes part IV.

1031. Stambaugh p. 137.

1032. *Von der grossen Sehnsucht*, Z. Book III.

1033. *Umfang der Umfänge*.

1034. Stambaugh p.140 (italics added).

1035. *Mittags* Z. Book IV.

1036. *Ward die Welt nicht eben vollkommen?*

1037. Stambaugh p. 143.

1038. *Das Trunkene Lied* Z Book IV; also known as *Das Nachtwandler Lied* – the night wanderer's song.

no object is involved in the experience of hearing. We hear sounds not objects.'¹⁰³⁹ In contrast to 'At Noon', where the experience is incomplete, there follows for Zarathustra a total loss of personal identity: he asks his followers whether he is a soothsayer, dreamer, a midnight bell *etc.* Although ultimately indefinable and ineffable, his experience seems to involve the complete acceptance of, and merging of, all opposites, love/hate, midnight/midday *etc.*, absorbed within what might be termed a 'prevailing cosmic joy', an experience which offers Zarathustra a resolution and solving of the problem of 'eternal recurrence'.

Seung, like Stambaugh, treats 'At Noon' as a forerunner of 'The Drunken Song' subtitled the former as 'A Mystical Respite' and sectioning the latter under the successive subtitles 'The Midnight Bell' 'Mystical Flight' and 'Mystical Union'.¹⁰⁴⁰ These two sections, 'At Noon' and 'The Drunken Song', it should be noted, are both set by Delius in his *A Mass of Life*, two of the three sections comprising Seung's 'Mystical Union'¹⁰⁴¹ forming the culmination and conclusion to the Mass.

Whitman's *Leaves of Grass*

Walt Whitman was early viewed by his friends as a 'mystic and prophet'¹⁰⁴² his mysticism being discussed in two of the initial and most influential books to examine non-theistic mysticism in the West.¹⁰⁴³ In view of Delius' own predisposition, Whitman's reputation in this respect may have already be known to Delius by 1903 – 1904 at the time of his writing *Sea Drift*. However, uncovering any sign of mystical experience (as described above) looks more likely to be fruitful in the case of the two late Whitman settings *Songs of Farewell* and *Prelude and Idyll*, rather than in *Sea Drift*.

Despite an ongoing interest in Whitman and mysticism, few studies appear to have concentrated on *isolating the components* of (extrovertive) mystical experience as attempted above for *The Journalist* and described in the literature cited on mysticism. An exception to this situation is V. K. Chari's book¹⁰⁴⁴ on Whitman's mysticism which offers lucid coverage of what he calls *The Dynamic Self* an equivalent term to the *expansion of consciousness* in the EME:

1039. Stambaugh p. 147.

1040. Seung pp 275 – 278 and pp 311 – 330.

1041. viz. Section 11 *Aller Lust will aller Dinge Ewigkeit* and Section 12 *O Mensch! Gieb Acht*

1042. Chari, V. K. in: Lemaster and Kummings p. 444.

1043. See Bucke ([1901] 1905) pp 178 – 196 and James ([1902] 1982 Lectures IV and V: *The Religion of Healthy Mindedness*.

1044. Chari (1976).

When Whitman had achieved this attenuation of ignorance and the realisation of the true glory of the self, there was an immense widening of the inner horizon. The process of growth into the larger self was one of expansion and enlargement. With the release from all flexions and constraining elements, the self became fluid and entered into the all.¹⁰⁴⁵

This type of experience may be represented in Whitman as a *cosmic* or *upwards* journey, the latter type set by Delius in his *Songs of Farewell*:

Speeding through space, speeding through heaven and the stars,
Speeding amid the seven satellites and the broad ring, and the diameter of
eighty thousand miles¹⁰⁴⁶

Passage to more than India!
O secret of the earth and sky!
Of you O waters of the sea! O winding creeks and rivers!
Of you O woods and fields! Of you strong mountains of my land!
Of you O prairies! Of you gray rocks!
O morning red! O clouds! O rain and snows!
O day and night, passage to you!
O sun and moon and all you stars! Sirius and Jupiter!
Passage to you!¹⁰⁴⁷

In the previous chapter, this second extract is also given as an example of *ascensionism*, since it expresses also an underlying strong desire, drive or urge to ascend. Usually, however, instances of cosmic expansion in Whitman tend towards a description of an already expanded state of consciousness. Other important metaphors of expansion in Whitman are the *sea* and the *sea voyage*, Chari writing: 'The sea, which captured his [Whitman's] imagination and always remained an 'invisible influence' in his poetry is a symbol of dynamism. [...]. In its boundless vistas and its far dim horizon, he reads tokens of his own ever opening spiritual expanse.'¹⁰⁴⁸In addition to *Sea Drift*, the sea is a fundamental symbol in *Songs of Farewell*, with movement II representing limitless skies and seas, being one of Delius' most perfect and visionary movements:

I stand as on some mighty eagle's beak,
Eastward the sea absorbing, viewing, (nothing but sea and sky),
The tossing waves, the foam, the ships in the distance,
The wild unrest, the snowy, curling caps—that inbound urge of the waves,
Seeking the shores forever.¹⁰⁴⁹

This vision of unlimited expanse is also a characteristic of Delius' non-Whitman works, as for

1045. Chari *ibid.* p. 94.

1046. Whitman: *Leaves of Grass: Song if Myself* § 33.

1047. Whitman: *Leaves of Grass: Passage to India* § 9.

1048. Chari (1976) pp 100 – 101.

1049. Whitman: *Leaves of Grass: Sands at Seventy: From Montauk Point.*

example, in some of his mountainscapes: *The wide far distance – The great solitude* (*The Song of the High Hills* at bar 164), or the tone poem *Over the Hills and Far Away*.

Two variants of Whitman's sea voyage are set by Delius in *Songs of Farewell*, both valedictory in mood, but both indicating a previous series of sea voyages of which this last points to a survival, continuation and expansion after death:

Joy, shipmate, joy! (pleas'd to my soul at death I cry, Our life is closed, our life begins, store,) The long, long anchorage we leave, The ship is clear at last, she leaps! She swiftly courses from the shore, Joy, shipmate, joy	Now finalè to the shore, Now land and life finalè and farewell, Now Voyager depart (much, much for thee is yet in store, Often enough, hast thou adventur'd o'er the seas Cautiously cruising, studying the charts, Duly again to port and hawser's tie returning; But now obey thy cherish'd secret wish Embrace thy friends, leave all in order, To port and hawser's tie no more returning, Depart upon thy endless cruise old Sailor. ¹⁰⁵⁰
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Additionally, it should be noted, in his analysis of *Song of Myself*, Chari also notes evidence of advanced mystical experience including *cosmic expansion and departure* an attribute which may presumably apply also to the above two poems.¹⁰⁵¹

Finally, two remaining components of the EME (in as far as they may be represented and can be identified as such in Delius' music), should be briefly mentioned: the *timeless moment* and the *transformation of the environment*. In *A Mass of Life* 'suspended time' and 'transfiguration' is conveyed in both words and music in Part II movement IV

*Was geschah mir: Horch! Flog die Zeit wohl davon? Falle ich nicht? Fiel ich nicht – horch!
In den Brunnen der Ewigkeit? O zerbrich, zerbrich, Herz, nach solchem Glücke! [...] Still!
Still! Ward die Welt nicht eben vollkommen?*¹⁰⁵²

The function of the GS point separating Part II movements III and IV is critical here,¹⁰⁵³ movement III ending very quietly *pppp* and *perdendosi*, the instrumental prelude to IV beginning *pp* and *con sordini* in the strings, so that the experience of Zarathustra in movement IV seems to arise 'out of the silence' from the beginning of movement IV, the whole of the Mass Part II pivoting on the bar line 1266 GS point.

1050. Whitman: *Leaves of Grass: Joy, shipmate, joy!* and *Now finalè to the shore* (movements IV and V of *Songs of Farewell*).

1051. Chari (1976) pp 124 – 126; see also *Song of Myself* § 52.

1052. What happened to me: Listen! Has time flown away? Am I falling, have I fallen into the wells of Eternity? O break, break heart from such bliss! Still! Still! Has the world not become perfect? (Nietzsche Z Book IV *Mittags*. Bold face has been added for emphasis in the above).

1053. See the analysis of *A Mass of Life* given in chapter 7.

A further instance of this temporal stasis and transfiguration in Delius was given for *A Song of the High Hills*, where the central section of the ABA' structure offers a contemplative and magical vision of mountain scenery, the two outer sections A and A' representing an 'ascent' and 'descent' to this state. Again, the proportional strategy is critical here, the entire B section can be imagined as being *contained in an 'expanded GS point'* and *outside of time* as argued in chapter 7.

A transformation of scenery due to EME, although difficult to confirm as such, may have been a common event in Delius' life. This would have compelled him to recreate this state as if 'by proxy' when setting certain texts of others, such as the first movement from *Songs of Farewell*:

Apple orchards, the trees all cover'd with blossoms;
Wheat fields carpeted far and near in vital emerald green;
The eternal, exhaustless freshness of each early morning;
The yellow, golden, transparent haze of the warm afternoon sun;
The aspiring lilac bushes with profuse purple or white flowers.¹⁰⁵⁴

In drawing conclusions from the above account, it should be noted that the section covering Delius' exceptional experiences' (which was drawn from Delius family sources and from his close personal friends), already gives a brief but cohesive account of a mind somewhere beyond the reaches of an 'everyday reality'. In addition, Charles Keary's characterisation of Delius in *The Journalist* supports the view of a personality undergoing repeated EMEs effecting profound changes in character and outlook. The rarity and unusualness of Richard Vaux's 'voices' (in that they largely originate from, and are triggered by, *natural sounds*), suggests these experiences were based on the real-life case of Delius himself. Also, the similarity or identity of *ascending flight* in ascensionist literature, with *cosmic expansion* in extrovertive mystical experience suggests that Delius may have been representing such EME expansion in some of his works, along with other facets of the EME discussed. An important point, is that Delius, in a number of his most significant works, and throughout his compositional career, conveys a strong sense of the 'mystical quest', this quest forming an important unifying force through his major works and in his creative life.¹⁰⁵⁵ Taking this last point into consideration, Delius might validly be designated 'a mystic' in that he *consciously attempted to pursue, recreate or relive* mystical experience or mystical contemplation in his works, and in this sense he pursued the path of a mystic. The term *mystic* must be further

1054. Whitman: *Leaves of Grass: Sands at Seventy: Out of May's Shows Selected*.

1055. viz. Zanoni (1888, incomplete), *Paa Vidderne* (1888), *Irmelin* (c. 1890 – 1892), *The Magic Fountain* (c. 1893 – 1895), *Koanga* (1895 – 1897), *A Mass of Life* (1904 – 05), *The Song of the High Hills* (1911), *Songs of Farewell* (early 1920s).

qualified in that Delius' beliefs and experiences lay wholly outside the fold of any monotheistic mysticism, his position being *non-theistic* rather than *atheistic*, and probably *inherent* or *innate* in his personality rather than being a dogma acquired through outside influences. Delius aligns closely in this respect with some other nineteenth century non-theistic mystics such as Richard Jefferies¹⁰⁵⁶ or Walt Whitman.¹⁰⁵⁷

The question remains of how Delius' personal behaviour and purported views, especially during later life, equate with the picture of an extrovertive mystic outlined above. This question is here left largely unanswered, but the foremost topic to be faced would be Delius' contraction of syphilis c. 1896 and the psychological effects this may have had on him, not only in his final years, but also how the disease may have affected his earlier behaviour, both in his attitudes and relationships with women and towards marriage, and in his increasing isolation after moving from Paris to Grez-sur-Loing.¹⁰⁵⁸ Further important points to take into account are Delius' inherent 'mischievousness' and 'love of argument', often leading him to act as *provocateur* in arguments involving Christian orthodoxy,¹⁰⁵⁹ and lastly, possibly, a vacillating or declining mystical sensibility resulting from increasing age and disease.¹⁰⁶⁰

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1056. For details and interpretations of Richard Jefferies' mysticism see Zaehner [1957] 1961 pp 45 – 49 and Keith (1965) chapter IV.

1057. For a critical review and bibliography see the article on *Mysticism* by V.K. Chari in: Lemaster, J.R. & Kummings, D.D.; see also Chari (1976).

1058. For instance, Charles Kennedy Scott wrote of Delius: 'His look was slightly disdainful, yet it was also kindly and serene – the mouth showed that; The eyes were not piercing, they reflected an inward rather than outward gaze, as though he could not be bothered with external things...Fenby talks of Delius' 'sternness' during the closing years. I never saw anything of this, and I am inclined to think that any forbidding traits of character came more from ill-health than ill-nature' (quoted by Foss in Heseltine (1952) pp 160 – 161).

1059. This quality was evident even in childhood, Clare Delius writing of her brother as a boy: '[a] gallant, handsome, mischievous boy, always seeking adventures, always in trouble!' (Clare Delius p. 36). Percy Grainger also remarks on Delius' traits of a teasing mischievousness and provocation in certain situations (see under Foss in Heseltine (1952) pp 174 – 175).

1060. In this respect, some may feel, however imperceptibly, a loss of 'prescience' or 'enchantment' or even sometimes a sense of negation or nihilism in some of Delius' music for the period post *A Song of the High Hills* (1911) – a full sense of the earlier luminosity, affirmation and optimism only returning with works of the early 1920s (for example, the *Cello Concerto*, *Songs of Farewell*, the incidental music to *Hassan*, and the unaccompanied chorus *The splendour fall on castle walls*).

We have seen in the previous chapters how Delius, during his Leipzig and early Paris years, strove to develop forms based on mathematical proportion, which could be used to structure or impart 'formal shape' both to such substantial works as *A Mass of Life* and the operas *Irmelin* and *Fennimore and Gerda*, as well as to smaller-scale pieces such as *On Hearing the First Cuckoo in Spring*. A prevailing element of Delius' technique was his use of the *Golden Section* which, apart from its role in formal structuring could also behave in a symbolic fashion, acting for example, in *Irmelin*, as a metaphor for, or emblem of, alchemical gold. More frequently however the *Golden Section* acts (both in several remaining works as well as additionally so in *Irmelin*), as a transforming agent leading, in the closing stages of a work, into 2: 1 proportioning (this latter denoting a sense of fruition or transcendence). Perhaps the most significant use of GS in Delius' works was his adoption of *patterns* – configurations composed of three or four parts in which the two outer sections are in GS proportion¹⁰⁶¹ enclosing a central section which may be variously proportioned, often by a single GS division leading to a *Complete Golden Section Pattern*.

In considering any typology of Delius' proportioning techniques, two main strands of GS usage have been identified, designated here as Types I and II. It is by an elaboration of each of these two elements, Type I by applying successive GS subdivisions to form descending chains in GS proportion, Type II by variously superimposing, overlapping and nesting individual patterns, that Delius builds up large-scale networks and 'top-down' hierarchies of interconnecting patterns and proportions which are especially characteristic of his larger works. Other significant components of Delius' proportioning techniques include *redistribution*¹⁰⁶² (often applied as the initial stage in proportioning a work, and over which Type I and II proportioning are subsequently superimposed), the *ascent formation*, (a special use of GS proportioning in which the 'ascending limb' of a GS division displays a gradual accrual of energy and dynamic, the 'descending limb' a gradual loss of such energy, and where the intervening GS point acts as the point of release), and the *positioning and interlinking of individual climaxes and climactic points* within a work to form an additional layer of proportioning.¹⁰⁶³

1061. Less frequently in 2: 1 or 1: 1 proportion.

1062. *i.e.* *The Distribution and Re-ordering of the Products of GS Division* – see Chapter 2.

1063. For a description of these techniques see Chapter 2.

The question arose: *Where and when did Delius learn these techniques?* The immediate hypothesis supported when starting research on this thesis, was that they had all been gleaned from musicians who were currently training (or who had previously trained) at the *Paris Conservatoire*, notably Claude Debussy or members of his circle. Several factors emerged which gradually began to counter this view: Delius' *Florida Suite*, known to have been composed in Leipzig in 1887, is so extensively and copiously proportioned by GS, that were this proportioning to have been applied solely at the time of the Paris revision, then the entire original Leipzig work would have had to have been abandoned and newly composed in Paris. This situation contradicts not only Delius' own statements about the *Florida Suite* Paris revision,¹⁰⁶⁴ but also the scholarly assumption that the original autograph score does indeed *physically* date from 1887 as indicated on the score itself.^{1065,1066} This leads to the important conclusion that the majority of Delius' proportioning techniques date from the time of his candidacy at the *Leipzig Konservatorium* and not from his early Paris years.¹⁰⁶⁷ A second point suggesting Delius' early acquisition in Leipzig of proportioning expertise is the apparent ease and panache with which he applied these techniques to those early works known to have been composed during 1888 in Paris or elsewhere in France. This facility contrasts with a sense of a more protracted and cautious adoption of proportioning techniques as exemplified, for example, by Debussy.¹⁰⁶⁸ In pursuit of this point, a study was made of the chronology and development, (mainly pertaining to his *larger-scale* proportioning) of Debussy's techniques from the early 1880s up to the 1905. Results strongly suggested a third main point, namely that, in most cases, Debussy lagged behind Delius, sometimes by several years, in his use of specific techniques associated with proportioning strategies common to both composers.

Attention subsequently turned to Germany as a potential source of Delius' ideas on proportion, and to the University and *königlichen Konservatorium* at Leipzig. Investigations lead to Delius' teachers at the Konservatorium and finally to the founder of the Leipzig Konservatorium and mentor to some of Delius' own teachers: Felix Mendelssohn. It was

1064. See the discussion under *Dating of the Florida Suite* (Chapter 3).

1065. See Threlfall (1973) 69–71; Threlfall (1977) 124 – 125.

1066. See also the discussion of the (defective) Leipzig tone-poem *Hiawatha* which in one of its extant passages contains evidence of three separate tripartite GS patterns (see text of Chapter 3 and Figure 3.2.2).

1067. Elements of proportioning technique which Delius may have been learned in Paris include the *Lucas Series*, and possibly also the *ascent formation*. See Chapter 10.

1068. Such differences could also arise, of course, through differences of personality between the two composers.

shown that Mendelssohn had himself employed proportioning techniques which were directly akin to those used by Delius (and by Debussy), including tripartite and quadripartite GS patterns, and 2: 1 (Delius only) and 1: 1 proportions. It was also indicated that this knowledge stemmed from Mendelssohn's youth when he was still under the tutelage of Carl Friedrich Zelter. These results suggest, therefore that Mendelssohn and Delius were representatives of a branch of Golden Section praxis that has remained wholly hidden and unrecognised in the field of research into the history of proportion in music. Future studies should therefore be expanded substantially to include a search among classical and baroque composers for the various GS patterns and configurations described here in respect of Mendelssohn and Delius. Investigations might also proceed with a full study of Mendelssohn's own proportioning praxis, including coverage of those figures succeeding Mendelssohn at the Leipzig Konservatorium, or who were at the University and who may have been responsible for preserving, continuing or elaborating Mendelssohn's techniques.¹⁰⁶⁹ Also apposite would be an investigation into Zelter's own music, and into that of his remaining pupils, or into Zelter's own special interest: J. S. Bach.

An essential corollary of the above findings is that there already existed among composers of Mendelssohn's time a 'tradition' of proportioning techniques, which was variously transmitted to subsequent composers, such as Delius or Debussy. Such a situation obviates any necessity to seek for the origins and impetus of Golden Section influence in music during the 19th century in painting and the plastic arts,¹⁰⁷⁰ or in various esoteric movements. The knowledge would instead have been directly handed down within the community of musicians.^{1071,1072} Expanding this hypothesis, Delius could then be seen as an emissary from

1069. See Chapter 10 for a further discussion of these points.

1070. The numbers of papers or books published on proportion in painting, the visual arts and architecture, in both 19th century Germany and France, far outweighs those covering proportion in music, there being only a handful of items in the latter case (see Chapter 1 and Graf 1958). This situation may have led to an assumption that musicians gained their original inspiration and expertise from the community of artists. This possibility applies especially to France, where artists have perhaps continued to hold a more prominent place in public attention and recognition than most of their musician counterparts.

1071. From a survey of 19th-century German and French esoteric journals carried out as part of the current project, there was almost no indication found of any knowledge or interest in the Golden Section *per se* nor mention of any role that various esoteric groups might have played in disseminating information on the proportion. An exception to this was Xavier Pfeiffer's 1887 article on the Golden Section and ancient Egyptian architecture in the German journal *Sphinx*. During 1888 this subsequently appeared in English in *The Theosophist* (Pfeiffer 1887, 1888). However, in the wake of Adolf Zeising's writings, the Golden Section did acquire some sense of an aura of 'the enigmatic' or of 'the miraculous', possibly due to the prominent position Zeising attributed to it in the make-up of the physical universe, rather than from any input or influence from esoteric groups. There is some evidence also that the Golden Section held a high position in contemporary philosophical enquiry (see Seydel 1869). Chapter 14 confirms that the Golden Section plays no part in developing any 'mystical' faculty as defined in that chapter. There may have been a tendency, however, for mysticism or a mystic's world view to

Leipzig, bringing to Paris new knowledge and approaches to GS and other proportioning stratagems.¹⁰⁷³ At the very least Delius can be singled out as arriving in Paris at a pivotal moment in the history of GS proportioning, where he stood at the nexus of a new movement towards a more complex GS usage than had been hitherto employed.¹⁰⁷⁴

Turning to Delius himself (and to studies carried out in the current thesis) it seems inadmissible that Delius *was not* deeply concerned with problems of imparting form to his music: he was preoccupied with such questions initially during the period beginning with the *Florida Suite* and culminating in *Irmelin*. Following this initial period of six years or so, he largely abandoned the use of GS for several years, resuming again only with the orchestral work *Paris* (published 1898) and the *Mitternachtslied Zarathustras* (1898).¹⁰⁷⁵ In the subsequent years he used formal proportioning up to c. 1922 – 1923, by which time his wife Jelka had taken up the role of amanuensis (Delius becoming totally blind by 1924). Regarding the subsequent dictations of the late 1920s and early 1930s, the preliminary sketches of the works subsequently completed by dictation were not examined by the present writer, so that this should constitute the next step in any future study of proportional activity in the later works. However, it appears that Delius must have already calculated the large-scale proportions of several works at the time of his initially laying them aside. One of these later works, however, stands out incongruously amongst all the remaining: *Songs of Farewell*. Due to its proportional intricacy and finesse it seems insupportable to the present writer to claim that this work could have been wholly or largely dictated *circa* 1930. As discussed in Chapter 8 possibly only the last movement would have been completed by such dictation.

Concerning Delius' early works, proportional analysis has proved an invaluable research tool

occur alongside (and to interact with) various other strands of influence (such as the Golden Section) within artistic groups occurring in Paris and elsewhere during the late 19th century.

1072. Ironically, Mendelssohn was using both Type I and Type II GS techniques some thirty years before Zeising began to publish his writings on the Golden Section, and, (with the proviso made that his proportioning could in no way result from any unconscious or random fortuity), this fact would seem to annul any claim that, before Zeising, GS manifested itself only as a consequence of some innate, unconscious faculty.

1073. Evidently not the sole emissary, as Debussy was already using (what was termed in Chapter 10) *the partitioning technique* before Delius' arrival in Paris. The earliest Debussy work found to be using this technique was *Printemps* of February 1887.

1074. In painting, the most prominent figure was Paul Sérusier, who first initiated a more complex style of GS proportion in his paintings in 1889 (see Chapter 9). In music, Debussy had written his *Petite Suite* during 1888 – 1889, which owes its overall structure to two overlapping symmetrical GS patterns, a procedure marking a new departure for the composer (see Chapter 10).

1075. Interestingly, Jeremy Dibble regards the years following the composition of *Irmelin* (1896 – 1898) as a turning point in the development of Delius' style. This view is based largely on the development of his harmonic idiom (Dibble 2014). An earlier and equally critical turning point would have been c. 1897 when Delius began experimenting with proportion and the Golden Section.

in solving several questions relating to dating, ordering of movements, editorial accretions *etc.* Thus for example, the editorial addition of 15 deleted bars in Act III Scene II of *Irmelin* has led to a proportional chaos which signals that early attention to the restoration and repair of one of Delius' most original scores is required.¹⁰⁷⁶ Also, the neglected orchestral settings of Tennyson's *Maud* proved to be, once the published order of the initial two songs is reversed, a highly worked-out study in proportion, binding the songs into a cohesive single cycle.¹⁰⁷⁷

Related to these problems, a more sustained sense of impending difficulty was experienced with the existing published scores of several key early works as well as some works of Delius' maturity. These included *The Florida Suite* as discussed above, *Koanga*¹⁰⁷⁸ and *A Village Romeo and Juliet*.¹⁰⁷⁹ Whilst acknowledging the initiative of scholars at the Delius Trust in publishing the *Complete Works*, some individual compositions perhaps now require a more detailed scrutiny in the form of a *Neue kritische Ausgabe* – fully documented and researched editions, shorn of all editorial accretions, with Delius' own markings restored – the whole approaching an authoritative *urtext* edition. In the case of the works mentioned, this would greatly facilitate and encourage international scholarship, especially in the reconstruction of Delius' own original intentions as regards proportion and form.

On the subject of Delius and esoterism, an examination of the first three operas reveals a considerable content and development of esoteric themes: indeed, the gradual unfurling in *Irmelin* and *The Magic Fountain* of an abstruse alchemical agenda suggests that alchemy was for Delius his main *raison d'être* for composing these two operas. Throughout his life Delius was strongly drawn toward the theme of the *quest* – and most characteristically the *spiritual* or *metaphysical* quest. This fact belies the common impression, sometimes purveyed by Delius himself, of an irreligious, materialistic and self-seeking personality. Possibly, Delius

1076. See Chapter 4.

1077. See Chapter 3.

1078. The available printed editions of *Koanga* seem especially inadequate and perplexing. For instance, for the first performance at Elberfeld in 1904, substantial last-minute cuts were made to the score (Randel 1971; Threlfall 1974). Although it remains unclear who in fact made these cuts, subsequent publications have all printed this bowdlerized Elberfeld version. Similarly, Delius and Keary's original text for *Koanga* has more recently been replaced by an 'improved' version (Threlfall 1977 p. 30; Delius, F., Keary, C. F., Craig, D., & Page, A. 1974 *see introduction iii – viii*). This is regardless of the fact that the Delius/Keary text would have deliberately moved away from Cable's original story towards an esoteric stance and worldview, as had been the case with the two previous operas (*see* Chapter 6).

1079. For a history of the various redactions and editions of *A Village Romeo and Juliet* *see* Threlfall: (1977) 34 – 41 and (1986) 25 – 28.

vacillated throughout his life in matters of personal outlook and belief, but he would seem innately to have belonged within the purview and sphere of monistic belief and experience. This inborn orientation became most likely consolidated or intensified during his time in Germany by exposure to such movements as *Naturphilosophie* and the various strands of 19th century German monism.

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Glossary of Miscellaneous Terms

Esoteric

1. Intended for or likely to be understood by only a small number of people with a specialized knowledge or interest, or an enlightened inner circle.
2. Having to do with concepts that are highly theoretical and without obvious practical application; often with mystical or religious connotations
3. Confidential; private.

Synonyms of *esoteric* include *arcane* and *recondite*.¹⁰⁸⁰

Esotericism. In the scholarly modern sense, esotericism denotes several historical currents including Gnosticism, Hermetism, magic, astrology, alchemy, Rosicrucianism, the Christian Theosophy of Jacob Böhme and his followers, Illuminism, Mesmerism, Swedenborgianism, Spiritualism, the theosophical currents associated with Helena Blavatsky and her followers. These currents are all subsumed under the general heading of “Western Esotericism” There are varying views concerning the common elements underlying these currents. The figure largely associated with the term (*Western*) *Esotericism* is the French academic Antoine Faivre.¹⁰⁸¹

Esoterism. The inward forms of faith and religion; transcendence, mystic experience, and internal realizations of the Divine.¹⁰⁸²

Hermeticism cf Hermetism evolved around the figure of *Hermes Trismegistus* who was, prior to the Renaissance, thought to have flourished in Egypt in remote antiquity. Later studies, however, identified the body of Hermetic literature as originating from late antiquity, during the Hellenistic and Graeco-Roman periods in Egypt. *Hermetic literature* is classified under two groupings: The *Technical* and the *Philosophical*. The *Technical Hermetica* cover largely treatises on *alchemy* and *astrology*, whilst the *Philosophical Hermetica* address various cosmological questions, the nature of Deity and so forth. An underlying precept of all the writings, is that of *Sympatheia* i.e. the belief that all things in the material and non-material universe are intimately interconnected with one another, and that therefore, with the correct knowledge and proficiency, the Universe can be both 'interpreted' and 'manipulated'. The astrologist for example, can decipher messages held in the stars, the theurgist can manipulate the gods, or the alchemist can effect transmutation of metals or other substances.

Monism is the philosophical viewpoint that everything derives from a single substance or entity only. The idea was prevalent in ancient Greek and Indian religious philosophy, whilst its main modern exponents include Spinoza, Hegel and the nineteenth century biologist-philosopher Ernst Haeckel.¹⁰⁸³

Mysticism, Mystic and Mystical Experience. In an ultimate religious sense, the word 'mysticism' denotes a sense of union, absorption or 'merging' of an individual awareness,

1080. Definitions of the word *esoteric* are taken from <https://en.wiktionary.org> accessed on 2nd August 2015.

1081. Antoine Faivre (1934 –). See, for example, Faivre [1986] 1994.

1082. The definition of *esoterism* is from *Wiktionary* *ibid*.

1083. See Jacobsen 2005.

consciousness, soul *etc.* with an absolute such as the 'One' in Neoplatonism (*q.v.*), God or the Godhead in mystical Christianity, or the identification of the personal soul (*Ātman*) with the transcendent and imminent reality (*Brahman*) in *Advaita Vedānta*. A comparable sense of merging, or coalescing may also occur in the *physical environment*. This may involve a merging or identification with single objects, or sometimes a feeling of expansion of the ego or Self with a sense of encompassing ultimately the entire physical universe. The term 'mystic' will be restricted to denote persons subject to mystical experiences of ego-loss, merging with a physical entity, an absolute *etc.*, who believe in the significance or reality of their experiences and who attempt to understand or repeat them.¹⁰⁸⁴

Neoplatonism flourished in the Graeco-Roman period between the 3rd and 6th centuries AD. The most widely known philosopher of Neoplatonism was Plotinus (c. 205 – c. 270); others included Plotinus' pupil Porphyry (233 – c. 309), Iamblichus (c. 243 – c. 325) and Proclus (412 – 485). Neoplatonists held that 'all things' emanate, flow or proceed from an indefinable, uncreated 'absolute' which they termed *The One* or *The Good*. This process of emanation occurred in a series of stages (*hypostases*), beginning with *Nous* (*Intelligence* or *Mind*), *Logos* (*Reason*, *Order* or *Thought*) followed by the World Soul. This last led to the individual soul and to matter. Individual souls, having become enmeshed the material universe, are largely forgetful of their origin and of their real identity in the One. A part of the individual soul, however, retains a dim memory of its origin from a divine source. Plotinus, proposes methods of attaining happiness, and ultimately of returning from the material existence and of re-absorption into the One. This process of re-absorption in an absolute (*Henosis*) became the foundation of Western mysticism, notably Christian, whilst Neoplatonic thought in general profoundly influenced both mediaeval and renaissance thinking as well as Jewish, and Islamic thought.

Occultism and Magic. The term 'occultism' (*l'occultisme*) was first appeared in France in 1842 and was taken up by Éliphas Lévi in 1856 and Helena Blavatsky in 1875. Various definitions of the word occur, a common one signifying the *practical aspects and application of the occult sciences* (alchemy, astrology and forms of magic). The word in scholarly use refers specifically to esoteric developments in France during the second half of the 19th century.¹⁰⁸⁵ Evelyn Underhill, who regards the word 'occultism' as synonymous with (the practice of) magic defines the basic beliefs of the 19th century French occultists as follows:

There exists a supersensible and real "cosmic medium", which interpenetrates, influences, and supports the tangible apparent world

There is an established analogy and equilibrium between the real and unseen world, and the illusory manifestations which we call the world of sense.

This analogy may be discerned, and is controlled, by the disciplined will of man, which thus becomes master of itself and of fate.¹⁰⁸⁶

Spiritualism/Spiritism (*q.v.*) is generally included as an integral component of 19th century occultism.

1084. See for example Merkur 1999 Chapters 1 and 2 and Marshall Part I. Underhill gives a detailed account of Christian mysticism.

1085. Information from Hanegraaff 2006 under: *Occult/Occultism* pp 884 – 889.

1086. From Underhill [1911] 1974 p.160 (slightly modified).

Pantheism. Pantheism is a metaphysical and religious position [.....].¹⁰⁸⁷ Broadly defined it posits that

God is everything and everything is God...the world is either identical with God or in some way an expression of his nature. Therefore:

Everything that exists constitutes a “unity” and this all-inclusive unity is in some sense divine.

'Pantheism' ... signifies the belief that every existing entity is only one Being; and that all other forms of reality are either modes (or appearances) of it or identical with it.¹⁰⁸⁸

Pantheism is often regarded as a religious form of monism q.v.¹⁰⁸⁹

Spiritualism and Spiritism. A main tenet of Spiritualism is the belief that spirits of the dead exist and that they may be contacted with through the agency of a medium or clairvoyant. The spiritualist movement first arose in mid-19th century New York following the reports of the Fox sisters, who were able to communicate with apparent disembodied individual entities or 'spirits.' Spiritualism spread rapidly to England, initially *via* visiting mediums from America, such as the Scottish-American Daniel Dunglas Home (1833 –1886). In France, Spiritualism, arrived from America in 1849, where it became influenced by ideas on Mesmerism and trance already developed by French investigators, such as Louis Alphonse Cahagnet (1809 – 1885). Another important French innovator was 'Allen Kardec' ¹⁰⁹⁰ who introduced the notion of *reincarnation* into Spiritualism, which then became known as *Spiritism* to distinguish it from American and British forms of Spiritualism. In Germany, the Spiritualist movement developed along similar lines to France, incorporating ideas on Mesmerism and Idealism. In the 1870s German Spiritualism gained the interest of two intellectuals, Johann Karl Friedrich Zöllner (1834 – 1882) and Gustav Theodor Fechner, both holding professorships at Leipzig University, and who were largely responsible for Spiritualism gaining interest and impetus both in Leipzig and in modern Germany as a whole.¹⁰⁹¹

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1087. From Levine p. 1.

1088. From Levine *ibid*.

1089. For example, Jacobsen has: *A religious monist is a pantheist who considers God and the Cosmos synonymous with God* – Eric Jacobsen p. 9. For a comparison of Monism and Pantheism see Levine § 2.3.2 from p. 84.

1090. The pseudonym of Hypolyte L. D. Rivail 1804 – 1869). For details see his *Livre des Esprits* (Book of Spirits) 1857.

1091. See Treitel Chapter 1 and Hanegraaff 2006 pp. 1080 – 1081.

References

- Aarne, A. & Thompson, S. (1981 – 2nd revision) *The Types of the Folktale; a Classification and Bibliography*. Helsinki: Academia Scientiarum Fennica.
- Abraham, Lyndy (1998, 2001) *A Dictionary of Alchemical Imagery*. Cambridge: Cambridge University Press.
- ACAD – Cambridge Alumni Database at <http://venn.lib.cam.ac.uk/acad/search> [accessed 17.11.2013].
- Adams, Courtney S. (1996) Erik Satie and Golden Section Analysis. *Music and Letters* 77(2): 242 – 252.
- Aksakov, A., Hartmann, E. V. & Wittig, G. C. (1894) *Animismus und spiritismus. Versuch einer kritischen prüfung der mediumistischen phänomene mit besonderer berücksichtigung der hypothesen der hallucination und des unbewussten. Als entgegnung auf Ed. v. Hartmann's Werk: "Der spiritismus."*. Leipzig: O. Mutze.
- André, M.-S. & Beaufils, C. (1995) *Papus, biographie: la belle époque de l'occultisme*. Paris: Berg International.
- Andrews, B. M. (2000) *Thoreau as spiritual guide: a companion to Walden for personal reflection and group discussion*. Boston: Skinner House Books.
- Anon. (1582) *Splendor Solis*. London: British Library: shelf mark Harley MS 3469.
- Anon. (1898) [Review] *The Journalist*. By C. F. Keary. *The Athenæum: A Journal of Literature, Science, the Fine Arts, Music, and the Drama*. September 24th, 1898 pp 415 – 416.
- Anon. (1917) [Review] *The Religion of a Pagan*. Religious Hours by C. F. Keary. *The Times Literary Supplement* 25.01.1917 p. 43.
- Anz, H. (2009) Wege ins Gebirge. Metaphysische Revolte und dramatische Metapher in Ibsens Werk pp 10 – 27 in: *Das grosse nordische Orakel: Henrik Ibsen als Leitbild der Moderne*. Berlin: Lit Verlag.
- Archer, William (1907/1921) *The Collected Works of Henrik Ibsen – Volume V: Emperor and Galilean – A World-Historic Drama*. London: William Heinemann.
- Asbjørnsen, P. C. & Moe, J. E. (1852) *Norske folkeeventyr*. Christiania: J. Dahl.
- Aurier, Albert G. (1891) Le Symbolisme en peinture: Paul Gauguin, pp 155 – 165 in: *Mercure de France, March 1891*.
- Bachelard, Gaston (1943) *L'air et les songes: essai sur l'imagination du mouvement*. Paris: Corti.
- Barchusen, J. C. & Barchusen, J. C. (1718) *Johannis Conradi Barchusen Elementa chemiae, quibus subjuncta est, Confectura lapidis philosophici, imaginibus repraesentata*. Lugduni Batavorum [Leiden]: Apud Theodorum Haak.
- Bartók, Béla (1911) ed. Suchoff, Benjamin (1976) A Delius Première in Vienna in *Béla Bartók Essays. Selected and Edited by Benjamin Suchoff*. London: Faber & Faber.
- Bataille, G. (1945) *Sur Nietzsche: volonté de chance*. Paris: Gallimard.
- Beardsworth, T. (1977) *A sense of presence: the phenomenology of certain kinds of visionary and ecstatic experience, based on a thousand contemporary first-hand accounts*. Oxford: Religious Experience Research Unit.
- Beaufils, C. (1993) *Josephin Peladan (1858 – 1918): Essai sur une Maladie du Lyrisme*. Grenoble: Jérôme Millon.

- Beecham, Thomas ([1959], 1975) *Frederick Delius*. London: Severn House.
- Bell, Jutta [as pseudonymous "Jutta Rill"] (1894) 'Poème en Prose (Traduit du Norvégien) *L'Initiation*, *Revue philosophique indépendante des Hautes Etudes*. 25: 167 – 175 (November 1894).
- Bell-Ranske, Jutta Mordt (1901) *Peasant lassies: tales of Norway*. London: Freemantle.
- Bell-Ranske, Jutta Mordt (1924) *The revelation of man; a key to mystic science*. Reading, Pa: William S. Rhode Co.
- Berk, M. F. M. v. d. (2004) *The magic flute = Die Zauberflöte: an alchemical allegory*. Leiden: Brill.
- Bénard, Charles (1876) L'Ésthetique allemande contemporaine. *Revue philosophique de la France et de l'étranger* Vol. 1 pp 125 – 60.
- Benington, Jonathan (1992) *Roderic O'Connor – A Bibliography, with a Catalogue of his Work* Dublin: Irish Academic Press.
- Béroalde de Verville, F. (1600) *Le Tableau des Riches Inventions: Couvertes du Voile des Feintes Amoureuses, qui sont Représentées dans le Songe de Poliphile: Desvoilées des Ombres du Songe et Subtilement Exposées*. Paris: M. Guillemot.
- Béroalde de Verville, (1610) *L'histoire véritable, ou, Le voyage des princes fortunez*. Paris: Pierre Chevalier.
- Bertonneau, T. F. (2007) *The high hills: Frederick Delius and the secular sublime*. [Tyler, Texas]: The Center for Literate Values.
- Biebel, Bernard (1978) *Oeuvre Chymique du docte Henri de Lintaut: l'Aurore suivie de l'Ami de l'Aurore*. Paris: Guy Trédaniel.
- Billy, A. (1971) *Stanislas de Guaita*. Paris: Mercure de France.
- Black, D. (1961) *The foot of the rainbow: a writer's autobiography*. London: Bles.
- Blanc, Charles (1867) *Grammaire des arts du dessin: architecture, sculpture, peinture: jardins – gravure en pierres fines – gravure en médailles – gravure en taille-douce – eau-forte, manière noire, aqua-tinte – gravure en bois camaieu – gravure en couleurs – lithographie*. Paris: Renouard.
- Blavatsky (1883) *The Theosophist*, Vol. IV No. 5. February 1883.
- Bøe, A. (1989) *Edvard Munch*. London: Academy Editions.
- Bouillet, Marie-Nicolas (1857 – 1861) *Les Ennéades de Plotin, traduites pour la première fois en français, accompagnées de sommaires, de notes et d'éclaircissements et précédées de la vie de Plotin et des principes de la théorie des intelligibles de Porphyre* (3 volumes) Paris: Hachette 1857 – 1861.
- Boyle, Andrew (1982) A Mass Of Life and Its "Bell-Motif" *Music Review* 43(1), 44 – 50.
- Boyle, Andrew. J. (1984) *A Quest for Innocence: The Music of Frederick Delius 1885 – 1900*. [PhD Thesis] University of Sheffield.
- Boyle-Turner, Caroline (1983) *Paul Sérusier*. Ann Arbor, Mich: UMI Research Press.
- Boyle-Turner, C. & Josefowitz, S. (1989) *Gauguin and the School of Pont-Aven: prints and paintings*. London, Royal Academy of Arts published in association with Weidenfeld and Nicolson.
- Boyle-Turner, Caroline (1988) *Paul Sérusier: la Technique, l'Œuvre Peint*. Lausanne: Edita.
- Boyle-Turner, Caroline (1995) *Sérusier et la Bretagne*. Douarnenez: Le Chasse-Marée/Armen.

- Boyle-Turner, C. & Smitmans, A. (1989) *Jan Verkade: ein holländischer Schuler Gauguins*. Zwolle: Waanders.
- Boulton Smith, John (1983) *Frederick Delius and Edvard Munch: their Friendship and their Correspondence* Rickmansworth: Triad Press.
- Brach, J-P and Hanegraaff, W. J. (2006) Correspondences In: Hanegraaff, W. J. (ed.) (2006): *Dictionary of Gnosis & Western Esotericism* Leiden: Brill p. 275 – 279.
- Bradley, Sculley et. al. - (1980) *The Collected Writings of Walt Whitman: Leaves of Grass – A Textual Variorum of the Printed Poems* (3 volumes). New York: NY University Press.
- Brandell, G. (1974) *Strindberg in inferno*. Cambridge, Mass: Harvard University Press.
- Brennan, Joseph G. (1972) Delius and Whitman *Walt Whitman Review* 18 pp 90 – 96.
- Breton, J.-J. (1999) *Le Mage dans "la Décadence Latine" de Josephin Péladan: Péladan, un Dreyfus de la Littérature*. Lyon: Ed. du Cosmogone.
- Brian, H. & Macdonald, M. (1986) *Havergal Brian on music: selections from his journalism. Volume 1: British Music*. London, Toccata.
- Broek, Roelof van den & Hanegraaff, Wouter J. eds (1998) *Gnosis and Hermeticism from Antiquity to Modern Times*. New York: State University Press of New York.
- Bucke, Richard M. ([1902] 1905) *Cosmic consciousness: a study in the evolution of the human mind*. Philadelphia: Innes & Sons.
- Burckhardt, T. (1971) *Alchemy: science of the cosmos, science of the soul*. Baltimore Penguin Books.
- Buitenen, J. A. B. van (1973 –) trans. and ed. *The Mahābhārata: 1. The Book of the Beginning*. Chicago: Chicago University Press.
- Bulwer-Lytton, Edward George (1842) *Zanoni. By the Author of Night and Morning, Rienzi etc* London: Saunders & Otley.
- Bulwer-Lytton, Edward George & Sobry, Adelle (1842) *Zanoni, par E. L. Bulwer, traduit de l'anglais, par Mlle A. Sobry*. Paris: Dumont.
- Bulwer-Lytton, E. B., trans. Lorain, Paul & Sheldon, Edward Stevens. (1858) *Zanoni, par Sir Edward Bulwer Lytton, Roman Anglais traduit avec l'Autorisation de l'Auteur sous la Direction de P. Lorain (par Sheldon)*. Paris: L. Hachette.
- Bütler, K. (1889) *Der goldene Schnitt und dessen Vorkommen in Natur und Kunst*.
- Cable, G. W. (1880) *The Grandissimes, a story of Creole life*. New York: C. Scribner's & Sons.
- Caillet, Albert L. (1912) *Manuel bibliographique des sciences psychiques ou occultes*. Paris: L. Dorbon.
- Caldwell, D. G. (1975) *Choral music of Frederick Delius*. Thesis – U. of Illinois at Urbana-Champaign.
- Campbell, J. L. (1983) *The ideal and the real: a study of the novels and stories of Edward Bulwer, Lord Lytton*. PhD Thesis, University of Wisconsin-Milwaukee, 1983.
- Carley, Lionel (1975) *Delius – the Paris Years*. London: Triad Press.
- Carley, Lionel (1983) *Delius: A Life in Letters – I: 1862 – 1908*. London: The Scholar Press.
- Carley, Lionel. (1988) *Delius: A Life in Letters – II: 1909 – 1934*. London: The Scholar Press.
- Carley, Lionel (1993) *Grieg and Delius – A Chronicle of their Friendship in Letters*. London & New York:

Marion Boyars.

Carley, L. (1998) *Frederick Delius: music, art, and literature*. Aldershot: Ashgate.

Carlson, Harry. G. (1996) *Out of inferno: Strindberg's reawakening as an artist*. Seattle, Washington: University of Washington Press.

Caron, R., Godwin, J., Hanegraaff & Vieillard-Baron (2001) *Ésotérisme, Gnosés & Imaginaire Symbolique: Mélanges offerts à Antoine Faivre*. Leuven: Peeters.

Chari, V. K. (1976) *Whitman in the light of Vedantic mysticism: an interpretation*. Lincoln: University of Nebraska Press.

Cheetham, Mark A. (1987) Mystical Memories: Gauguin's Neoplatonism and "Abstraction" in Late-Nineteenth-Century Painting. *Art Journal*: 46(1) 5 – 21.

Cheetham, Mark A. (1991) Out of Plato's Cave: "Abstraction" in Late Nineteenth-Century France. pp 1 – 39 in: *The Rhetoric of Purity: Essentialist Theory and the Advent of Abstract Painting*. Cambridge: Cambridge University Press.

Chop, Max (1907) Frederick Delius in: *Modernen Musiker*. Berlin: Harmonie Verlag [original text and english translation in: Jones (2002)].

Chop, Max (1910) Tonsetzer der Gegenwart: Frédéric Delius Sein Leben und Schaffen *Neue Musik-Zeitung* XXXI Jahrgang [original text and english translation in: Jones (2002)].

Clement, R. T. (1991) *Paul Gauguin: a bio-bibliography*. New York: Greenwood Press.

Clement, R. T., Houzé, A. & Erbolato-Ramsey, C. (2004) *A sourcebook of Gauguin's symbolist followers: Les Nabis, Pont-Aven, Rose + Croix*. Art reference collection no. 27. Westport CT: Praeger.

Cobb, M. G., Debussy, C. & Miller, R. (1994) *The poetic Debussy: a collection of his song texts and selected letters*. Rochester, N.Y: University of Rochester Press.

Columbia Daily Spectator, Volume LVIII, Number 127, 15 March 1915: *Either Ibsen had a spiritual message for the world*.

Colonna, Francesco, (1499) *Hypnerotomachia Poliphili*. Venice: Aldus Manutius, Romanus, for Leonardus Crassus.

Comité Paul Sérusier: *Catalogue Raisonné de l'Œuvre* at: www.comite-serusier.com

Constant, A. (1856) *Dogme et rituel de la haute magie, par Eliphas Lévi (l'abbé A.-L. Constant)*. Paris: G. Baillière.

Cooke, Deryck (1962a) Delius & Form: A Vindication. I. *The Musical Times*. 103: 392 – 393.

Cooke, Deryck (1962b) Delius & Form: A Vindication. 2. *The Musical Times*. 103: 460 – 465.

Cooke, Deryck. (1963) Delius the Unknown. *Proceedings of the Royal Musical Association*. 89: 17 – 29.

Cooke, Deryck (1964) 'Delius: *A Mass of Life*' (programme note, London Philharmonic Orchestra, Royal Choral Society 3 November 1964).

Cooke, Deryck (1970) Delius: *A Mass of Life*' (broadcast interval talk with musical illustrations). BBC Radio 3, 21 June 1970.

Cooper, J. W. (2007) *Panentheism: the other god of the philosophers*. Nottingham: Inter-varsity Press.

Coxhead, N. (1986) *The relevance of bliss*. New York: St. Martin's Press.

- Crombie, J. (2003) *Chez Charlotte and fin-de-siècle Montparnasse*. Paris: Kickshaws.
- Crystall, Ellen (1996) *Esoteric traditions and music in the early twentieth century with an appraisal of composer Cyril Scott*. New York University [PhD Dissertation].
- Cumberland, G. (1919) *Set down in malice, a book of reminiscences*. London: G. Richards Ltd.
- Dauthendey, M. (1912) *Der Geist meines Vaters: Aufzeichnungen aus einem begrabenen Jahrhundert*. München: A. Langen.
- Dauthendey, M. (1913) *Gedankengut aus meinen wanderjahren*. München: A. Langen.
- Debussy, Claude., Howat, Roy (editor) (2000) *Œuvres complètes Série I, Vol. 1*. Paris: Durand.
- Debussy, C. *Centre de documentation Claude Debussy*. <http://www.debussy.fr/encd/centre/centre.php>
- Debussy, C. (n.d.) *La Damselle Éluë. poème lyrique d'après D.-G. Rossetti pour voix de femmes solos, chœur et orchestre. traduction française de Gabriel Sarrazin*. Paris: A. Durand.
- Debussy, C. (1884) *l'Enfant Prodigue. Scène Lyrique*. Paris: Durand, Schoenwerk & Cie.
- Debussy, C. (1904) *Printemps: Suite Symphonique, pour Orchestre, Piano et Choeurs. Transcription pour Piano à 4 mains*. Paris: Durand & Fils.
- Debussy, C. & Benton, R. (1981) *Songs, 1880 – 1904*. New York: Dover.
- Debussy, Claude & Lesure, François (1980) *Lettres, 1884-1918*. Paris: Hermann.
- Debussy, C. & Samazeuilh, G. (1919) *Fantaisie pour piano et orchestre*. Paris: Jean Jobert.
- Delius, Clare (1935) *Frederick Delius: memories of my brother*. London: Nicholson & Watson.
- 'Délius et Papus' [Delius, Frederick and Encausse, Gérard] (1894) 'Anatomie et Physiologie de l'Orchestre' *L'Initiation, Revue philosophique indépendante des Hautes Etudes*. Volume 24 pp 193 – 214 (Sept.1894).
- Delius, Frederick (1920) *Recollections of Strindberg. The Sackbut I (8)* pp 353 – 354.
- Delius, Frederick (1921) *Violin Concerto Miniature Score* London: Augener.
- Delius, Frederick (1924) *Sonata No. 2: for Violin and Piano*. London: Boosey & Hawkes.
- Delius, Frederick (1931) *Sonata No. 3: for Violin and Piano*. London, Hawkes & Son.
- Delius, Frederick (1952) *Eine Messe des Lebens (A Mass of Life)*. London: Boosey & Hawkes (Hawkes pocket score no. 879).
- Delius, Frederick (1952) *Cello concerto*. London: Boosey & Hawkes.
- Delius, Frederick (1969) *A Book of Songs: in Two Sets*. London: Oxford University Press. .
- Delius, F., Keary, C. F., Craig, D. & Page, A. (1974) *Koanga: opera in three acts with prologue and epilogue*. London: Boosey & Hawkes [vocal score].
- Delius, F., (1975) *Fennimore und Gerda: zwei Episoden aus dem Leben Niels Lyhnes in elf Bildern nach dem Roman von J.P. Jacobsen*. London: Boosey & Hawkes.
- Delius F. (1976) *Eventyr: [Once upon a time]*. London: Stainer & Bell.
- Delius, F., (1980) *Koanga: Opera in 3 acts with prologue and epilogue*. London: Boosey & Hawkes.
- Delius, Frederick edited by Sir Thomas Beecham and Robert Threlfall (1951 – 1993) *Frederick Delius*,

Complete Works 33 volumes. London: Delius Trust.

-----*Frederick Delius Works – Volume 1: Irmelin. Lyric Drama in 3 Acts.*
London: Boosey & Hawkes (c. 1992).

. -----*Frederick Delius Complete Works – Volume 2: The Magic Fountain. Lyric Drama in 3 Acts.*
London: Boosey & Hawkes (c. 1989).

. -----*Frederick Delius Complete Works – Volume 3: Koanga.* London: Boosey & Hawkes (1991).

----- *Frederick Delius Complete Works – Volume 6: Fennimore and Gerda.* London: Boosey & Hawkes (1989).

-----*Frederick Delius Complete Works – Volume 10: A Mass of Life. Eine Messe des Lebens.*
London: Boosey & Hawkes (1994).

----- *Frederick Delius Complete Works. Volume 11b: The Song of the High Hills.*
London: Universal Edition (1985).

----- *Frederick Delius Complete Works. Volume 13a: Songs of Farewell, mixed chorus & orchestra.*
London: Boosey & Hawkes. (c.1989).

-----*Frederick Delius Complete Works – Volume 14: Paa Vidderne : (Melodrama); Poem by Henrik Ibsen.*
London: Boosey & Hawkes (c. 1988).

----- *Frederick Delius Complete Works – Volume 15b: Songs with Orchestra (part 2).*
London: Delius Trust & Boosey & Hawkes (c. 1987).

-----*Frederick Delius Complete Works – Volume 16: Settings from Tennyson's Maud: for tenor and orchestra.* London: Boosey & Hawkes (1990).

----- *Frederick Delius Complete Works – Volume 18a: Twenty-two Songs with Piano.*
London: Delius Trust & Stainer & Bell (c. 1987).

-----*Frederick Delius Complete Works – Volume 20: Florida. Suite for Orchestra.* London: Boosey & Hawkes (1986).

-----*Frederick Delius Complete Works – Volume 21a: Early Orchestral Works (I).* London: Stainer & Bell (1989).

-----*Frederick Delius Complete Works – Volume 21c: Early Orchestral Works (III).* London: Boosey & Hawkes (1992).

----- *Frederick Delius Complete Works – Volume 22: On the Mountains and American Rhapsody.* London: Delius Trust & Boosey & Hawkes (c. 1989).

-----*Frederick Delius Complete Works – Volume 23a: Over the Hills and Far Away: for orchestra.* New York: G. Schirmer c. 1990.

Frederick Delius Complete Works – Volume 26: North Country Sketches; A Dance Rhapsody (No 2); Eventyr
London: Stainer & Bell (1986).

----- *Frederick Delius Complete Works – Volume 28: Suite and Légende for Violin & orchestra.*
London: Delius Trust & Boosey & Hawkes.

----- *Frederick Delius Complete Works – Volume 29b: Works for violoncello and orchestra.*
London: Boosey & Hawkes (1985).

----- *Frederick Delius Complete Works – Volume 31c: Works for Cello and Piano.*
London: Boosey & Hawkes 1986.

- Frederick Delius Complete Works – Volume 33: Works for Piano Solo*. London: Boosey & Hawkes. 1988.
- *Frederick Delius Complete Works – Supplementary Volume 2: Two Early Suites for Medium Orchestra* London: Boosey & Hawkes 1997.
- *Frederick Delius Complete Works – Supplementary Volume 4: Unfinished Works in Variation Form*. London: Delius Trust & Boosey & Hawkes 1997.
- *Frederick Delius Complete Works – Supplementary Volume 6 Hiawatha: Tone-Poem for Orchestra*. London: Delius Trust & Boosey & Hawkes 2008.
- Delius Society (1974 –) *The Delius Society Journal*. London: Delius Society.
- Denis, Maurice (1942) *ABC de la Peinture, suivi d'une étude sur la Vie et l'Oeuvre de Paul Sérusier*. Paris: Librairie Floury.
- Depardieu, Benoît (2009) *Koanga de Frederick Delius : cherche premier opéra afro-américain désespérément* *Frederick Delius's Koanga: desperately seeking first african-american opera*. Dickason, Renée. <http://lisa.revues.org/2072>.
- Dibble, Jeremy(2014) Les Années Parisiennes de Delius: un Tournant Stylistique pp 117 – 126 in: Rossi, Jérôme ed. (2014) *Frederick Delius et la France*. Sampzon: Delatour.
- Dietschy, Marcel (1990) *A Portrait of Claude Debussy* Oxford: Oxford University Press.
- Dittmann, R. (1982) *Eros and Psyche: Strindberg and Munch in the 1890s*. Ann Arbor, Mich: UMI Research Press.
- Dorra, Henri and Rewald, John (1959) *Seurat: L'Oeuvre Peint, Biographie et Catalogue Critique*.Paris: Les Beaux-Arts.
- Edinger, Edward. F. (1985) *Anatomy of the Psyche: Alchemical Symbolism in Psychotherapy*. La Salle, Ill: Open Court.
- Eggum, A., (1989) *Munch and photography*. New Haven: Yale University Press.
- Evening Post, The [New York] 15 April 1909: *A lecture on 'Ibsen, Maeterlinck and the Drama*. . .
- Evrard, Renaud (2014) 'From Symptom to Difference: 'Hearing Voices' and Exceptional Experiences. *Journal of the Society for Psychical Research* 78.3 (916) July 2014 pp 129 – 148. London: Society for Psychical Research.
- Fabrizius, Johannes (1976 rev. 1989/1994) *Alchemy. The Medieval Alchemists and their Royal Art*. London: Diamond Books.
- Faivre, Antoine (1994) *Access to Western esotericism*. Albany: State University of New York Press.
- Faivre, A. & Needleman, J. (1993) *Modern esoteric spirituality*. London: SCM.
- Faivre, Antoine (1993) *The Golden Fleece and Alchemy*. Albany: State University of New York Press.
- Faivre, Antoine (1998) Renaissance Hermeticism and the Concept of Western Esotericism pp 109 – 123 in: Broek, Roelof van den & Hanegraaff, Wouter J. eds (1998) *Gnosis and Hermeticism from Antiquity to Modern Times*. New York: State University Press of New York.
- Fechner, Gustav, (1865) Ueber die Frage des goldenen Schnittes. *Archiv für die zeichnenden Künste* 11: 100 – 112. Leipzig: Rudolph Weigel.
- Fechner, Gustav (1876) *Vorschule der Aesthetik* (2 volumes). Leipzig: Breitkopf & Härtel.

- Fell, Jill (2011) The Fascination of Filiger: From Jarry to Breton. *Papers of Surrealism* 9: 1 – 26.
- Fenby, Eric (1981) *Delius as I knew him*. Revised edition London: Faber & Faber.
- Fenby, E. & Lloyd, S. (1996) *Fenby on Delius: collected writings on Delius to mark Eric Fenby's 90th birthday*. London: Thames Publishing.
- Figuier, Louis (1854 – 2nd edition 1856) *L'Alchimie et les Alchimistes. Essai Historique et Critique sur la Philosophie Hermétique*. Paris: Hachette.
- Figulus, B. (1608) *Pandora Magnalium Naturalium Aurea Et Benedicta, etc*, Straßburg: Zetzener.
- Figulus, B. & Rudolf. (1682) *Thesaurinella Olympica Aurea Tripartita: Das ist: Ein himmlisch gueldenes Schatzkaemmerlein/ Von vielen außerlesenen Kleinodien zugeruestet/ darinn der uhralte grosse und hochgebenedeyte Charfunckel-stein und Tinctur-schatz verborgen ; In drey unterschiedliche Cellulas außgetheilet*. Franckfurt am Mayn: Wolff.
- Figulus, B. trans. Waite, A. E. (1893) *A golden and blessed casket of nature's marvels. Now first done into English from the German original pub. at Strasburg in the year 1608*. London: J. Elliott & Co.
- Filiger, C. (1981) *Filiger: dessins, gouaches, aquarelles*. Yvelines: Musée départemental du Prieuré.
- Finseth, I. F. (1995) *"Liquid fire within me": language, self and society in transcendentalism and early evangelicalism, 1825 – 1855*. Thesis (M.A.) – University of Virginia, 1995.
- Flamel, Maury (1996) Universal Language – 'Chaos: cross hatched pattern and vessel.'
Alchemy Web Forum: Message no. 0191 at www.levity.com/alchemy/frm0200.html. [accessed 11th July 2015].
- Fleury, Michel (2014) *Fennimore and Gerda: une "expérience delienne" aux multiples résonances*. pp 147 – 175 in: Rossi, Jérôme ed. (2014) *Frederick Delius et la France*. Sampzon: Delatour.
- Fuson, Robert Henderson (2000) *Juan Ponce de León and the Spanish discovery of Puerto Rico and Florida*. Blacksburg, Virginia: McDonald & Woodward Pub. Co.
- Gabella, P. A. (1615) *Secretioris Philosophiæ consideratio brevis a Philippo a Gabella Philosophiæ St. conscripta, & nunc primum una cum Confessione fraternitatis R.C. in lucem edita*. Kassel: W. Wessel. [eng. tr Alton, Christopher (n.d.): *A Consideration of the Most Secret Philosophy* at: www.alchemywebsite.com].
- Gallienne, Richard le (1891) [review] The Fountain of Youth: A Fantastic Tragedy by Eugene Lee-Hamilton. *Academy*, no. 1008, (Aug. 29) pp 169 – 170.
- Gallienne, Richard le (1896) *The Quest of the Golden Girl*. London: J. Lane.
- Geibel, E. (1883) *Gesammelte Werke: in acht Bänden. 1 Jugendgedichte*. Stuttgart: Cotta.
- Gillies, M. (1989) *Bartók in Britain: a guided tour*. Oxford: Clarendon Press.
- Gillespie, D. C. (1996) *The search for Thomas F. Ward, teacher of Frederick Delius*. Gainesville: University Press of Florida.
- Godwin, Joscelyn (1994) *The Theosophical Enlightenment*. Albany: State University of New York Press.
- Godwin, Joscelyn (1995) *Music and the occult: French musical philosophies 1750 – 1950*. Rochester: University of Rochester Press.
- Godwin, Joscelyn (2006) Bulwer-Lytton, Edward George In: Hanegraaff, Wouter J. (ed.) (2006): *Dictionary of Gnosis & Western Esotericism*. Leiden: Brill pp 213 – 217.
- Goeringer, A. (1893) *Der goldene Schnitt (göttliche Proportion) und seine Beziehung zum menschlichen*

- Körper zur Gestalt der Tiere, der Pflanzen und Krystalle, zur Kunst und Architektur, zum Kunstgewerbe, zur Harmonie der Töne und Farben, zum Versmass und zur Sprachbildung mit Zugrundlegung des goldenen Zirkels.* München: Lindauer.
- Gohory, J. (1572) *Livre de la Fontaine Perilleuse, avec la chartre d'Amours: autrement intitulé, le Songe du Verger.* Paris: pour Jean Ruelle.
- Goodman, Russell, "Transcendentalism", *The Stanford Encyclopedia of Philosophy* (Fall 2013 Edition), Edward N. Zalta (ed.), at: <http://plato.stanford.edu>
- Goossens, E., Sir (1972) *Overture and beginners.* London: Greenwood.
- Gottlob, H. (2012) *Frederick Delius, der vergessene Kosmopolit: die Rezeption des englischen Komponisten im deutschsprachigen Kulturraum.* Bielefeld: Aisthesis.
- Graf, Hermann (1958) *Bibliographie zum Problem der Proportionen; Literatur über Proportionen, Mass und Zahl in Architektur, bildender Kunst und Natur.* Speyer: Pfälzische Landesbibliothek.
- Gratzer, W. (1993) *Zur "wunderlichen Mystik" Alban Bergs: eine Studie.* Wien: Böhlau.
- Gray, Cecil (1948) *Memories of Delius* in: *Musical Chairs: or, Between Two Stools.* Reprinted in: Redwood C. (1976) *A Delius Companion* pp 135 – 145. London 1976.
- Grieg, E., Grieg, N. H., Delius, F. & Carley, L. (1993) *Grieg and Delius: a Chronicle of their Friendship in Letters.* London: Boyars.
- Grimes D. (1966) *Form in the orchestral music of Frederick Delius.* Thesis (PhD) – North Texas State University.
- [Grimley, Daniel] (2015) *Delius, Modernism, and the Sound of Place.* Research Councils UK at <http://gtr.rcuk.ac.uk/projects?ref=AH/M00659X/1> – accessed 24.10. 2015.
- Grimm, Jacob and Grimm, Wilhelm (1812) *Kinder und Hausmärchen. Gesammelt durch die Brüder Grimm Teil 1.* Berlin: Realschulbuchhandlung.
- Grossmann-Vendrey, S. (1969) *Felix Mendelssohn Bartholdy und die Musik der Vergangenheit.* Regensburg: Gustav Bosse.
- Guaïta, Stanislas de ([1886], 3rd edn.1895) *Essais de Sciences Maudites. I. Au Seuil des Mystère.* Paris, Chamuel.
- Guaïta, Stanislas de (1891) *Essais de Sciences Maudites. II. Le Serpent de la Genèse. Première Septaine (livre I): le Temple de Satan.* Paris: Librairie de Merveilleux.
- Guaïta, Stanislas de (1897) *Essais de Sciences Maudites. II. Le Serpent de la Genèse. Seconde Septaine (livre II): la Clef de la Magie Noire.* Paris: Chacornac.
- Guaïta, Stanislas D. (1899) *Stanislas de Guaïta et sa bibliothèque occulte.* Paris: Dorbon.
- Guaïta, S. D., Dantinne, E. & Bertholet, E. (1952) *Lettres Inédites de Stanislas de Guaita au Sâr Joséphin Péladan: une Page Inconnue de l'Histoire de l'Occultisme à la Fin du XIXe Siècle.* Neuchâtel: Editions. Rosicruciennes.
- Guicheteau, Marcel (1976) *Paul Serusier.* Paris: Éditions Side.
- Guicheteau, Marcel (1989) *Paul Sérusier tome II.* Pontoise, France: Graphédís.
- Gurney, E., Myers, F. W. H. & Podmore, F. (1886) *Phantasms of the Living* (2 Vols.). London: Trübner & Co.
- Haeffner, Mark (1991, 1994) *Dictionary of Alchemy From Maria Prophetissa to Isaac Newton*

San Francisco and London: HarperCollins.

Hanegraaff, W. J. (ed.) (2006) Romanticism and the Esoteric Connection pp 237 – 268 in: Broek, Roelof van den & Hanegraaff, Wouter J. eds (1998) *Gnosis and Hermeticism from Antiquity to Modern Times*. New York: State University Press of New York pp 237 – 268.

Hanegraaff, W. J. (ed.) (2006): *Dictionary of Gnosis & Western Esotericism* Leiden: Brill.

Hardy, A. (1979) *The spiritual nature of man: a study of contemporary religious experience*. Oxford: Clarendon Press.

Hauck, Dennis William. (2008) *The Complete Idiot's Guide to Alchemy*. New York: Alpha Books.

Hauke, C. M. D. (1961) *Seurat et son oeuvre (2 volumes)*. Paris: Brame & Hauke.

Heidelberger, Michael (1998) *Naturphilosophie* in: Craig, E. (1998) *Routledge encyclopedia of philosophy*. Volume 6: 737 – 743. London: Routledge.

Henry, Charles (1885) *Introduction à une esthétique scientifique*. Paris: La Revue Contemporaine 2: 441–469.

Herbert, Robert L. (1962) *Seurat's Drawings*. New York and London: Shorewood/Studio Vista.

Herbert, Robert L. et al. (1991) *Georges Seurat 1859 – 1891*. New York: Metropolitan Museum of Art.

Hermann, Conrad (1871) 'Das Gesetz der ästhetischen Harmonie und die Regel des goldenen Schnittes.' *Philosophische Monatshefte* 7: 1 – 20.

Hermann, Conrad (1895) 'Zur Mathematik des Schönen' *Die Gegenwart* 47: 105 – 106.

Herz-Fischler, Roger (1983) An Examination of Claims Concerning Seurat and "Golden Number" *Gazette des Beaux-Arts* (sixth series) 101: 109 – 112 (March 1983).

Herz-Fischler, Roger (1997) *Le Nombre d'or en France de 1896 à 1927*. *La Revue de l'Art* (1997) 118 (4): 9 – 16.

Herz-Fischler, Roger (1998) *A mathematical history of the golden number*. Mineola, N.Y: Dover Publications.

Herz-Fischler, Roger (2004) *Adolph Zeising, 1810 – 1876: the life and work of a German intellectual*. Ottawa: Mzhinigan Publishing.

Heseltine, Philip A, and Hubert J. Foss ([1923], 1952) *Frederick Delius. Reprinted with Additions, Annotations and Comments by Hubert Foss [with a Portrait.]*. London: Bodley Head.

Hodne, Ørnulf. (1982) *The Types of the Norwegian Folktale*. Oslo: Universitetsforlaget.

Holden, Amanda (2001) *The new Penguin opera guide*. London: Penguin.

Holmyard, E. J. ([1957] Dover 1990) *Alchemy*. New York: Dover Publications.

Horenstein, Jascha (1971) BBC interview of Horenstein by Alan Blyth recorded 9th March 1971.

Houe, P., Rossel, S. H. & Stockenström, G. (2002) *August Strindberg and the Other: New Critical Approaches*. Amsterdam: Rodopi.

Howat, Roy (1977) Debussy, Ravel and Bartók: Towards Some New Concepts of Form. *Music & Letters*. 58, 285 – 293.

Howat, Roy (1979) *Proportional Structure in the Music of Claude Debussy*. University of Cambridge: Doctoral Dissertation.

- Howat, Roy (1983a) *Debussy in Proportion – A musical analysis*. Cambridge: Cambridge U.P.
- Howat, Roy (1983b) Bartók, Lendvai and the Principles of Proportional Analysis. *Music Analysis*. 2: 69 – 95.
- Huismann, Mary C. (2009) *Frederick Delius: a research and information guide*. London & N.Y: Routledge.
- Humbert de Superville, David, P. G. (1827) *Essai sur les signes inconditionnels dans l'art, par D. P. G. H. d. S. [Humbert de Superville.]*. Leiden: C. C. Van der Hoek.
- Hutchings, Arthur (1948) *Delius* London: Macmillan.
- Ibsen, Henrik (1908) 'Paa Vidderne'. *Samlede vaerker. Mindeudgave*. Tredje Bind. Kristiania, Gyldendalske Boghandel. pp 42 – 54.
- Ibsen, H. & Passarge, L. (1885) *Gedichte*. Leipzig: Reclam.
- Initiation* (1888 – 1912) *l'Initiation, Revue Philosophique Indépendante des Hautes Études*. Paris.
- Introvigne, Massimo *Martinism: second period*. pp 780 – 783 in: Hanegraaff, W. J. (ed.) (2006): *Dictionary of Gnosis & Western Esotericism*. Leiden: Brill 2006.
- Jacob, Mira (1989) *Charles Filiger 1863 – 1928 [Filiger l'Inconnu]*. Strasbourg: Les Musées de la Ville de Strasbourg.
- Jacobsen, E. P. (2005) *From Cosmology to Ecology: the Monist World View in Germany from 1770 to 1930*. Oxford: Peter Lang.
- Jacobsen, J. P. (1880) *Samlede Skrifter II. Niels Lyhne*. Kbh: Gyldendal.
- Jacobsen, J. P., trans. Nunnally, T. (1990) *Niels Lyhne*. Seattle: Fjord Press.
- Jadassohn, Salomen (1885). *Die Formen in den Werken der Tonkunst*. Leipzig: Kistner.
- Jahoda, Gloria (undated) Transcript of interview with Margaret Vessey. in: *Gloria Jahoda Frederick Delius Collection, 1884 – 1969 Series 1: Background Materials, 1894 – 1969 Box 1 Folder 10*. |Florida State University Special Collections, Archives & Manuscripts.
- Jahoda, Gloria (1969) *The Road to Samarkand: Frederick Delius and His Music*. New York: C. Scribner's and Sons.
- James, W. (1902) *The varieties of religious experience: a study in human nature: being the Gifford Lectures on natural religion delivered at Edinburgh in 1901 – 1902*. New York: Longmans, Green.
- Jefferies, Richard ([1883] 1979) *The story of my heart: my autobiography*. London: Quartet Books.
- Jensen, Eric F. (1994) Sound as Symbol: *Fin de Siècle* Perceptions of the Orchestra. *Music Review* (August 1994) pp 227 – 240.
- Johnson, J. W. (1928) *Der weisse Neger: ein Leben zwischen den Rassen*. Frankfurt am Main: Frankfurter Societäts-Druckerei.
- Jones, Philip (1989) 'Delius's Leipzig Connections: 1886 – 1888' *The Delius Society Journal* 102: 3 – 14.
- Jones, Philip. (1981) *The American sources of Delius's style*. Thesis (PhD) – University of Birmingham, 1981. [Published in the series: *Outstanding dissertations in music from British Universities*. New York: Garland Publishing Inc. 1989].
- Jones, Philip (2002) *The Collected Writings of the German Musicologist Max Chop on the Composer Frederick Delius*. Studies in the History and Interpretation of Music Volume 76. New York: Edwin Mellen.

- Jong, H. M. E. de. ([1969] 2002) *Michael Maier's Atalanta Fugiens. Sources of an Alchemical Book of Emblems*. Maine, York Beach: Nicolas-Hays.
- Judah, J. S. (1967) *The History and philosophy of the metaphysical movements in America*. Philadelphia: Westminster Press.
- Jung, C. G. ([1954]1966) *The Practice of Psychotherapy* Bollingen Series XX Vol.16. Princeton, N. J: Princeton University Press.
- Jung, C. G. (1968) *Psychology and Alchemy* Bollingen Series XX Vol.12. Princeton, N. J: Princeton University Press.
- Jung, C. G. (1970) *Mysterium coniunctionis: an inquiry into the separation and synthesis of psychic opposites in alchemy*. Bollingen Series XX Vol.14. Princeton, N. J: Princeton University Press.
- Kalbe, O. (1889) *Der Goldene Schnitt in Zeichnung und Schrift, insbesondere als goldenes Grundgesetz schöner Schriftformen*. Hannover: Cruse.
- Kardec, Allan (1857) *Le livre des esprits contenant les principes de la doctrine spirite sur la nature des esprits, leur manifestation et leurs rapports avec les hommes ; les lois morales, la vie présente, la vie future, et l'avenir de l'humanité: écrit sous la dictée et publié par l'ordre d'esprits supérieurs*. Paris: E. Dentu.
- Keary, C. F. (1881) The Homeric Words for Soul. *Mind* Vol. 6.
- Keary, C. F. (1882) *Outlines of primitive belief among the Indo-European races*. London: Longmans, Green & Co.
- Keary, C. F. (1888) [pseud: Matuce, H. O.] *A Wanderer*. London: Kegan Paul & Co.
- Keary, C. F. (1891) *The Vikings in Western Christendom, A. D. 789 to A. D. 888*. London: T. Fisher Unwin.
- Keary, C. F. (1891 – 92) The Four Students. *MacMillan's Magazine* 65: 226 – 240.
- Keary, C. F. (1892) *Norway and the Norwegians*. London: Percival & Co.
- Keary, C. F. (1893, 2nd edn. 1895) *The Two Lancrofts*. London: George Bell.
- Keary, C F (1895) India: Impressions *New Review* 12 pp 29 – 38, 142 – 152, 251 – 259 and 395 – 401.
- Keary, C. F. (1895/1896) *Herbert Vanlennert*. London: W. Heinemann.
- Keary, C. F. (1896) Elizabeth. *New Review* 15 (88) 341 – 358 and 15 (89) 462 – 478.
- Keary, C. F. (1898) *The Journalist*. London: Methuen & Co.
- Keary, C.F. (1901) The Scandinavian Novel *The Edinburgh Review* 194 (Oct 1901) pp 463 – 489.
- Keary, C. F. (1902) *The Brothers: a fairy masque*. London: Longmans & Co.
- Keary, C. F. (1903) *Rigel, an autumn mystery*. London: D. Nutt.
- Keary, C. F. (1917) Spiritualism and Telepathy. p. 381 in: *The Times Literary Supplement* 09.08.1917
- Keith, W. J. (1965) *Richard Jefferies: a critical study*. London: Oxford University Press.
- Keller, G. (1856) *Die Leute von Seldwyla*. Braunschweig: Vieweg.
- Koestler, A. (1954) *Arrow in the blue: an autobiography*. London: Readers Union.
- Köhler-Zülch, Ines (1996) König Drosselbart in: *Enzyklopädie des Märchens Bd. 8. Klerus – Maggio*. Berlin: de Gruyter. pp 148 – 156.

- Kruse, G. (2000) *Frederick Delius – Béla Bartók: Zeugnisse einer künstlerischen Begegnung*. Wilhelmshaven: Noetzel.
- Lalo, Charles (1908) *Esquisse d'une esthétique musicale scientifique* [Phil. Diss. Paris 1907]. Paris: Alcan.
- Lathe, C. A. (1972) *The group Zum schwarzen Ferkel: a study in Early Modernism*. Thesis (PhD), University of East Anglia.
- Lederman, Richard J. (2015) Frederick Delius: Controversies regarding his neurological disorder and its impact on his compositional output. *Progress in Brain Research* Volume 16 pp 217 – 232.
- Lemaster, J. R. & Kummings, D. D. (2011) *The Routledge encyclopedia of Walt Whitman*. New York & London: Routledge.
- Lendvai, Ernő (1955) *Bartók stílusa a "Szonáta két zongorára és ütőhangszerekre" és a "Zene húros-, ütőhangszerekre és celestára" tükrében*. Budapest: Zeneműkiadó. [Bartók's Style in the Sonata for Two Pianos and Percussion and Music for Strings, Percussion and Celesta]
- Lendvai, Ernő (1962) Duality and Synthesis in the Music of Béla Bartók. *The New Hungarian Quarterly* III: 7 (1962) reprinted in: Kepes, Gyorgy (ed.) (1966) *Module, Symmetry, Proportion*. London: Studio Vista pp 174 – 193.
- Lendvai, Ernő. (1971) *Béla Bartók: an analysis of his music*. London: Kahn & Averill.
- Lesure, François (1993) *Claude Debussy avant Pelléas ou les années symbolistes*. Paris: Klincksieck.
- Lesure, François (2003) *Claude Debussy: biographie critique: suivie du catalogue de l'œuvre*. Paris: Fayard.
- Leudar, I. & Thomas, P. (2000) *Voices of reason, voices of insanity: studies of verbal hallucinations*. London: Routledge.
- Levine, Michael P. ([1994], 2014) *Pantheism: a non-theistic concept of deity*. London: Routledge.
- Lewis, J. R. (1994) *The Astrology Encyclopedia*. Detroit: Gale Research.
- Lindsay, Jack (1970) *The Origins of Alchemy in Graeco-Roman Egypt*. London: Frederick Muller.
- Lippitt, J. & Urpeth, J. (2000) *Nietzsche and the divine*. Manchester: Clinamen Press.
- Lowe, Rachel (1965) 'Delius's First Performance' *Musical Times* 106(1465): 190 – 192.
- Lowe, Rachel (1974) *Frederick Delius, 1862 – 1934: a catalogue of the music archive of the Delius Trust, London*. London: Delius Trust.
- Lowe, Rachel (1981) *A Descriptive Catalogue with Checklists of the Letters and Related Documents in the Delius Collection of The Grainger Museum, University of Melbourne, Australia*. London: Delius Trust.
- Luke, F. D. 'Nietzsche and the Imagery of Height' in: Pasley, M. (1978) *Nietzsche: imagery and thought: a collection of essays*. London: Methuen, pp 104 – 122.
- Lutz, M. (1880) *Goldener Schnitt der Damen-Garderobe: neu erfundene Wissenschaftliche Zuschneidekunst der Damen-Bekleidung*. Stuttgart: Verlag des Herausgebers.
- Lyon (France), Wallraf-Richartz-Museum, Walker Art Gallery & van Gogh Museum, Amsterdam. (1994). *Maurice Denis, 1870 – 1943*. Ghent: Snoeck-Ducaju.
- Madden, Charles (2005) *Fib and Phi in Music. The Golden Proportion in Musical Form*. Salt Lake City: High Art Press.
- Maier, M. (1618) *Atalanta fogens, hoc est, Emblemata nova de secretis naturæ chymica.....* Oppenheim:

printed by Hieronymus Galler, for Johann Theodor de Bry.

Maier, M., Godwin, J. & Streich, H. (1989) *Atalanta fugiens: an Edition of the Fugues, Emblems and Epigrams*. Michigan, Grand Rapids: Phanes Press.

Mallary Masters, G. (1992) Renaissance Kabbalah pp 132 – 153 in: Faivre, A. & Needleman, J. (1993). *Modern esoteric spirituality*. London: SCM.

Marshall, Paul (2005) *Mystical Encounters with the Natural World: Experiences and Explanations*. Oxford: Oxford University Press.

Martin, Glen T. (1991, 1996) 'Deconstruction and Breakthrough' in Nietzsche and Nāgārjuna' in: *Nietzsche and Asian Thought* Chicago and London: University of Chicago Press pp 91 – 111.

Masson, Henry (1991) *Paul Sérusier: de Pont-Aven à Châteauneuf-du-Faou*. Saint-Brieuc: Les Presses Bretonnes.

Matthew, H. C. G. & Harrison, B. H. (2004) *Oxford dictionary of national biography: in association with the British Academy: from the earliest times to the year 2000*. Oxford: Oxford University Press.

Mathews, Patricia Townley (1984) *G.-Albert Aurier's Symbolist Art Theory and Criticism*. PhD Thesis – The University of North Carolina at Chapel Hill.

Mathews, Paul (2008) *Anatomie et physiologie de l'orchestre* by Delius and Papus: A Translation and Commentary. *Theoria*: 15: 63 – 108.

Matthias, J. J. C. (1886) *Die Regel vom goldenen Schnitt im Kunstgewerbe; ein Handbuch für Werkstatt, Schule und Haus*. Leipzig: H. Haessel.

Maxwell, M. & Tschudin, V. (1990) *Seeing the invisible: modern religious and other transcendent experiences*. London: Arkana.

Mendelssohn Bartholody, Felix ed. Schallhorn, I. (2008) *Drei Sonaten und eine Sonatina für Klavier*. Leipzig: Friedrich Hofmeister.

Mercier, A. (1969) *Les Sources Ésotériques et Occultes de la Poésie Symboliste (1870-1914). I: Le Symbolisme Français*. Paris: A.-G. Nizet.

Merkur, D. (1999) *Mystical moments and unitive thinking*. Albany, N.Y: State University of New York Press.

Merkur, Dan (1999) 'Stages of Ascension in Hermetic Rebirth' *Esoterica* 1: 79 – 96.

Meyer, M. (1985) *Strindberg: a biography*. London: Secker & Warburg.

Millroth, T. (1993) *Molards salong*. [Swedish] Stockholm: Forum.

Mirville, Jules-Eudes de (1863 – 1864) *Des Esprits et leurs Manifestations Diverses* (5 volumes). Paris: H. Vrayet de Surcy.

Moldenhauer, H. & Moldenhauer, R. (1978) *Anton von Webern: a chronicle of his life and work*. London: Gollancz.

Monroe, R. R. (1992) *Creative brainstorm: the relationship between madness and genius*. New York: Irvington Publishers.

Monvel, Charles Boutet de, details accessed from <http://artist.christies.com/Boutet-de-Monvel-13232.aspx> on 29.06.13.

Mordden, Ethan (1980) *A guide to orchestral music: the handbook for non-musicians*. New York: Oxford University Press.

- Munch, E. & Tøjner, P. E. (2003) *Munch in his own words*. Munich, London & New York: Prestel.
- Murray, H. A. (1966) American Icarus pp 615 – 641 in: Burton, Arthur & Harris, Robert E. *Clinical studies of personality*. New York: Harper & Row.
- Musée Départemental du Prieuré (c. 1981) *Filiger – Dessins, Gouaches, Aquarelles*. Saint-Germain-en-Laye.
- Mylius, Johann Daniel (1622) *Ioannis Danielis Mylii ... Philosophia reformatata: Continens Libros binos*. Francofurti: Jennis.
- Nagy, Dénes (1997) Golden Section(ism): From Mathematics to the Theory of Art and Musicology. *Symmetry: Culture and Science* Vol. 8(1) pp 74 – 112.
- Naumann, Emil (1869) *Die Tonkunst in ihren Beziehungen zu den Formen und Entwicklungsgesetzen alles Geisteslebens. Bd. 1: Die Tonkunst in der Culturgeschichte*. Berlin: B. Behr.
- Neveux, M. (1991) *Construction et proportion: apports germaniques – de la section d’or au nombre d’or – dans une théorie de la peinture française de Seurat à Le Corbusier*. Diss. Paris: 1991.
- Neveux, M. & Huntley, H. E. (1995) *Le nombre d’or: Radiographie d’un mythe*. Paris: Éd. du Seuil.
- New York Call* Friday December 7, 1917 p. 4: *Friend of Ibsen Dreams of Universal Theater*.
- New York Evening Call* November 16, 1918: *Art-Literature Lecture/Rand School of Social Science....”*
- New York Sun* Sunday December 19, 1910: *Third Platform Expounded by Mme. Bell-Ranske, who knows her Ibsen*.
- New York Times* February 14, 1910: see under *The Snow Storm*.
- New York Times* March 7, 1910: see under: *Votes-for-Women Week*.
- New York Tribune* October 12, 1909: see under *See Yourself as You Are*.
- New York Tribune* March 17, 1910 p.11: see under *Urges “Soul Waves.” Only Way for Women to Lead, Says Anti-Suffragist*.
- Nichols, Robert (1953) *Delius as I knew him*. In *Selections from the BBC Programme “Music Magazine”* pp 5 London: Rockliff, 1953. Reprinted in: Redwood, C. (1976) *A Delius Companion*. London 1976. pp 113 – 115.
- Nichols, Roger & Langham Smith, Richard (1994) *Claude Debussy: Pelléas et Mélisande*. Cambridge: Cambridge University Press.
- Nietzsche, Friedrich ([1883 – 1886] ed. Colli, Giorgio and Montinari,azzino 1988/ 1999): *Also sprach Zarathustra I-IV*. Berlin: de Gruyter & Munich: Deutscher Taschenbuch Verlag.
- Nuckols, Gregory T. (2010) *On nature and the psyche: the psychological and spiritual significance of nature-based numinous experiences / a dissertation submitted by Gregory Thomas Nuckols*. Carpinteria, California: Pacifica Graduate Institute.
- Oelmann, Klaus Henning (1997) *Edvard Griegs Briefwechsel Bd 2: Der Briefwechsel mit dem Hause Breitkopf & Härtel, die Briefe von Frederick Delius an Nina und Edvard Grieg und andere ausgewählte Schreiben*. Egelsbach: Hänsel-Hohenhausen.
- Ohm, Martin (1834 – 2nd edition) *Die reine Elementar-Mathematik: zum Gebrauche an höheren technischen Lehranstalten, besonders aber an Gymnasien und zum Selbst-Unterrichte*. Berlin: Jonas Verlagsbuchhandlung.
- Olson, S. F. ([1956]/1997) *The singing wilderness*. Minneapolis: University of Minnesota Press.

- Olsson, Ulf (2000) 'Going Crazy: Strindberg and the Construction of Literary Madness' pp 115 – 131 in: Houe, P., Rossel, S. H. & Stockenström, G. (2002) *August Strindberg and the Other: New Critical Approaches*. Amsterdam: Rodopi.
- Oppenheim, J. (1985) *The other world: spiritualism and psychical research in England, 1850 – 1914*. Cambridge: Cambridge University Press.
- Orledge, Robert (1982) *Debussy and the theatre*. Cambridge: Cambridge University Press.
- Paccioli, Luca (1889) *Fra Luca Pacioli Divina Proportione. Die Lehre vom Goldenen Schnitt. Nach der venezianischen Ausgabe vom Jahre 1509 neu herausgegeben, übersetzt und erläutert von C. Winterberg*. Vienna: C. Graeser.
- Palmer, Christopher (1976) *Delius: Portrait of a cosmopolitan*. London: Duckworth.
- Paper, Jordan D. (2004) *The Mystic Experience: a Descriptive and Comparative Analysis*. Albany, N.Y: State University of New York Press.
- Papus [Gérard Encausse] (1888) *Traité élémentaire de science occulte etc.* Paris: G. Carré.
- Parkes, G. (1991) *Nietzsche and Asian thought*. Chicago: University of Chicago Press.
- Pernety, Antoine-Joseph Dom (1758) *Les Fables Egyptienne et Grecques Dévoilées & réduites au Même Principe, avec une Explication des Hiéroglyphes, et de La Guerre de Troye*. Paris: Bauche (reprinted: Milan: Archè 1971).
- Pernety, Antoine-Joseph Dom (1787) *Dictionnaire mytho-hermétique: dans lequel on trouve les allégories fabuleuses des poètes, les métaphores, les énigmes et les termes barbares des philosophes hermétiques expliqués*. Paris: Deladain (reprinted: Paris: Denoë 1972).
- Pfeifer, Franz Xavier (1885) *Der goldene Schnitt und dessen Erscheinungsformen in Mathematik, Natur und Kunst*. Augsburg: M. Huttler.
- Pfeifer, Franz Xavier (1887) Des goldenen Schnittes unbewußte Anwendung in der alt-ägyptischen Architektur und deren psychologische Bedeutung. *Sphinx* 4(24) 369 – 372.
- Pfeifer, Franz Xavier (1888) The Golden Ratio: Its Use in Ancient Egyptian Architecture and its Psychological Significance. *The Theosophist* 9 (101): 282 – 290.
- Phénix, P. (1984) *Alchimia, le Labyrinthe de la Sapience Éternelle*. Hayange: P. Benacchio.
- Philalethus, Eirenaeus (1667) *Introitus Apertus ad Occlusum Regis Palatium*. Amsterdam: John Langius.
- Philalethus, Eirenaeus (1669) *Secrets Reveal'd: or, An Open Entrance to the Shut-Palace of the King*. London: William Cowper.
- Philippson, E. A. (1923) *Der Märchentypus von König Drosselbart*. Greifswald: Suomalainen Tiedeakatemia.
- Pick, Albert (1895) "Unger, Ephraim Salomon" in: *Allgemeine Deutsche Biographie* 39 (1895) pp 282 – 285.
- Pierrot, Jean (1981) *The Decadent Imagination 1800 – 1900*. Chicago: Chicago University Press.
- Pinkus, Karen (2010) *Alchemical Mercury: A Theory of Ambivalence*. California: Stanford University Press.
- Podmore, F. (1894) *Apparitions and thought-transference: an examination of the evidence for telepathy*. London: Walter Scott.
- Poisson, Albert (1890) *Cinq traités d'alchimie des plus grands philosophes: Paracelse, Albert le Grand, Roger*

Bacon, etc. Paris: bibliothèque Chacornac.

Poisson, Albert (1891) *Théories & Symboles des Alchimistes. Le grand-oeuvre. Suivi d'un essai sur la bibliographie alchimique du XIX^e siècle.* Paris: Chacornac.

Pollock, W. H., Lucas, E.V. et.al. (1918): C. F. Keary. *The Nineteenth Century* 83 (June 1918) pp 1264 – 1283.

Prideaux, S. (2005) *Edvard Munch: behind the Scream.* New Haven [Conn.]: Yale University Press.

Przybyszewski, S. (1965) *Erinnerungen an das literarische Berlin.* München: Winkler.

Puffett, D. (1998) A Nietzschean Libretto: Delius and the Text for 'A Mass of Life'. *Music & Letters.* 79: 244 – 267.

Puffett, D. (2001) Gone with the Summer Wind; or, What Webern Lost. Nine Variations on a Ground. pp 498 – 538 in: *Derrick Puffett on music.* Aldershot: Ashgate. Reprinted from: Bailey, Kathryn (1996) *Webern Studies.* Cambridge: Cambridge University Press pp 32 – 72.

Rajan, Chandra (1989) *Kālidāsa. The Loom of Time – A Selection of his Plays and Poems.* New Delhi: Penguin Books (India) Ltd.

Ramsay, Jay (1997) *Alchemy. The Art of Transformation.* London: Thorsons.

Randel, W. (1971) 'Koanga' and Its Libretto. *Music & Letters.* 52: 141 – 156.

Randel, W (1971) 'Frederick Delius in America' *The Virginia Magazine of History and Geography* 79 (33): 349 – 366 reprinted in: Redwood, C. (1976) *A Delius Companion.* London pp 147 – 167.

Rapoport, P. (1992) *Sorabji, a Critical Celebration.* Aldershot, Hampshire, England: Scolar Press.

Rea, Melvin. (1998) *The Music of Frederick Delius.* [Mikrofiche-Ausg.] Marburg: Tectum Verlage.

Redwood, Christopher (1976) *A Delius Companion.* London: John Calder.

Redwood, Christopher (2000) 'Five Songs from Tennyson's 'Maud' by Delius.' *The Delius Society Journal* no.127 (2000): 16 – 21.

Redwood, Christopher (1978) Delius's Last Known Relative. *The Delius Society Journal* 60: 18 – 20.

Redwood, Christopher (1980a) Delius, his Sister and his Songs. *The Delius Society Journal* 68: 6 – 9.

Redwood, Christopher (1980b) Some other Delius Descendants. *The Delius Society Journal* 68: 9 – 10.

Redwood, Dawn (1978) *Flecker and Delius: the making of "Hassan"* London: Thames Publishing.

Reinecke, Carl H. C. (1911) Mendelssohn und Schumann als Lehrer. *Neue Zeitschrift für Musik* 78 p. 3.

Reuben, Paul P. "Chapter 4: American Transcendentalism: A Brief Introduction." *PAL: Perspectives in American Literature – A Research and Reference Guide.*
URL: <http://www.csustan.edu/english/reuben/pal/chap4/4intro.html>.

Revers, Peter (2008) 'Mysterious City – City of pleasures. Frederick Delius: Paris: The Song of a great City'. pp 117 – 138 in: Tadday, Ulrich (2008) *Frederick Delius.* Munich: Edition Text + Kritik.

Richards, Robert J. (2002) *The romantic conception of life: science and philosophy in the age of Goethe.* Chicago: University of Chicago Press.

Richmond, Martha B (1945) *Information concerning Mme Jutta Bell-Ranske, nom-de-plume of Mrs. Charles Bell née Jutta Mordt, of Oslo, Norway: friend and neighbor of Frederick Delius at Solano Grove 1884 – 5.* Call

780.92 D355Ri Jacksonville Public Library, Jacksonville, Florida.

Ribot, Théodule (1875) *La psychologie allemande contemporaine: M. Wilhelm Wundt. La Revue Scientifique de la France et de l'Étranger* 1875/01 pp 771 – 760.

Roberts, M. (1990) *Gothic Immortals: the Fiction of the Brotherhood of the Rosy Cross*. London: Routledge.

Roberts, T. T. (1998) *Contesting spirit: Nietzsche, affirmation, religion*. Princeton: Princeton University Press.

Roberts, T. T. (2000) Ecstatic philosophy. pp 200 – 225 in: Urpeth, J. & Lippitt, J. (2000) *Nietzsche and the divine*. Manchester: Clinamen Press.

Robinson, M. (1998) *Studies in Strindberg*. Norwich: Norvik Press.

Robinson, M. (2008) *An international annotated bibliography of Strindberg studies 1870 – 2005*. (3 Vols). London: Modern Humanities Research Association.

Rookmaaker, H.R. (1959) *Synthetist Art Theories. Genesis and nature of the Ideas on Art of Gauguin and His Circle* Amsterdam: Swets & Zeitlinger.

Rossi, Jérôme (2005) *L'œuvre symphonique de Frederick Delius (1907 – 1914): étude du langage musical et des procédés formels*. Université de Paris, Sorbonne: Doctoral Dissertation.

Rossi, Jérôme (2010) Formal Processes in the Symphonic Poems of Delius. A Global Musical Analysis and Perspective. *The Delius Society Journal* Number 148 (Autumn 2010) pp 57 – 65.

Rossi, Jérôme ed. (2014) *Frederick Delius et la France*. Sampzon: Delatour.

Rozenov, E. K. (1904) *O primenienii zakona "zolitoga deleniya" k muzyke: Esteticheskoe issledovanie* [On the Application of the Law of the "Golden Division" to Music: An aesthetic Study]. St. Petersburg. Also published in: *Izvestiya Sankt-Peterburgskogo obshchestva muzykal'nykh sobrani* 1904, June – August issue pp 1 – 19. [not seen by current author].

Rulandus, Martinus (1612) trans. Waite, A. E. (1894, 1964) *A Lexicon of Alchemy or Alchemical Dictionary*. London: Watkins.

Sabaneev, Leonid (1925, 1927) "Étyudy Shopena v osveshchenii zakona zolitogo secheniya" [The études of Chopin in the light of the law of the golden section]. *Iskusstvo* 1925 no 2 pp 132 – 145; *Iskusstvo* 1927 nos 2 – 3 pp 32 – 56.

Salmon, W. & Le Roux, G. (1695) *Dictionnaire hermétique contenant l'explication des termes, fables, énigmes, emblèmes et manières de parler des vrais philosophes*. Paris: Laurent d'Houry.

Saylor, Eric (2012) Race, "realism," and fate in Frederick Delius's *Koanga*. In: André N. A., Bryan, K. M. & Saylor, E. (2012) *Blackness in opera*. Urbana: University of Illinois Press.

Sérusier, P. (1987) *Paul Sérusier, 1864 – 1927: Musée des Jacobins, Morlaix, 3 juillet – 5 octobre 1987*. Morlaix: Le Musée.

Sérusier, P. (1995) *Paul Sérusier, 1864 – 1927: exposition 11 mai – 30 juin 1995, Galerie l'Ergastère*. Paris: La Galerie.

Seung, T. K. (2005) *Nietzsche's epic of the soul: Thus spoke Zarathustra*. Lanham, Md: Lexington

Seydel, R. (1860) *Der Fortschritt der Metaphysik innerhalb der Schule des ionischen Hylozoismus*. Leipzig: Breitkopf und Härtel.

Seydel, R. (1861) *Der Fortschritt der Metaphysik unter den ältesten ionischen Philosophen: eine*

geschichtphilosophische Studie. Leipzig: Breitkopf und Härtel.

Seydel, Rudolf (1867) 'Noch einmal der goldene Schnitt' *Zeitschrift für Philosophie und philosophische Kritik*. 51: 295 – 303.

Seydel, Rudolf (1869) 'Die geistige Deutung des goldenen Schnitts' *Zeitschrift für Philosophie und philosophische Kritik*. 53: 240 – 248.

Seydel, Rudolf (1873) *Widerlegung des Materialismus und der mechanischen Weltansicht ein Vortrag*. Berlin: Henschel.

Seydel, Rudolf (1879) Schellings Nachwachen. *Zeitschrift für Deutsches Altertum und Deutsche Literatur*. 23: 203 – 205.

Shattock, J. (1999) *The Cambridge bibliography of English literature*. Cambridge: Cambridge University Press.

Sidgewick, Henry *et al.* (1894) Report on the census of hallucinations. *Proceedings of the Society for Psychical Research* vol. 10 pp 25 – 422.

Simpson, J. A. (1989) *The Oxford English dictionary*. Oxford, Clarendon Press.

Simpson, Juliet (1999) *Aurier, symbolism, and the visual arts*. Bern: Lang.

Singer, S. D. (1992) *Shipwrecks of Florida*. Sarasota, Florida: Pineapple Press.

Siorvanes, Lucas (1996) *Proclus: Neo-platonic Philosophy and Science*. Edinburgh: Edinburgh University Press.

Sitsky, Larry (1994) *Music of the repressed Russian avant-garde, 1900 – 1929*. Westport: Greenwood Press.

Smith, Barry (1993) 'Peter Warlock and the Occult'. *Samus* 13: 71 – 80.

Smith, Barry (1998) *The Occasional Writings of Philip Heseltine (Peter Warlock): Vol.3, Musical Criticism* (2). London: Thames Publishing/Peter Warlock Society.

Smith, Barry (2000) *Frederick Delius and Peter Warlock: a friendship revealed*. Oxford: Oxford University Press.

Smith, Daniel B. (2008) *Muses, madmen, and prophets: hearing voices and the borders of sanity*. New York: Penguin.

Smitmans, A., Beers, J. A. V. & Verkade, W. (2007) *P. Willibrord Jan Verkade Künstler und Mönch ; [Ausstellung der Kunststiftung Hohenkarpfen e.V., Kunstverein Schwarzwald-Baar-Heuberg und der Erzabtei St. Martin zu Beuron, Kunstmuseum Hohenkarpfen, 15. Juli – 11. November 2007, Erzabtei St. Martin zu Beuron, 22 Juli – 3 Oktober 2007]*. Beuron: Beuroner Kunstverl.

Smyth, E. (1935) *Beecham and Pharoah: Thomas Beecham's Fantasia in B sharp Major; Egypt before England's Exodus: a fragment of autobiography*. London: Chapman & Hall.

Sonnenburg, L. (1881) *Der goldene Schnitt; Beitrag zur Geschichte der Mathematik und ihrer Anwendung*. Bonn: Georgi.

Stace, W. T. (1960) *Mysticism and philosophy*. California, L. A: Tarcher.

Stambaugh, J. (1994) 'The Other Nietzsche' pp 135 – 151 in: *The other Nietzsche*. Albany: State University of New York.

Strindberg, A., Eklund, T. & Sandbach, M. (1979) *Inferno and From an Occult Diary*. Harmondsworth: Penguin Books.

- Strindberg, A. & Jollivet-Castelot, F. (1998) *Correspondance alchimique d'August Strindberg à Jollivet Castelot*. Lyon: Éditions. du Cosmogone.
- Strindberg, A. & Sprinchorn, E. (1968) *Inferno, Alone, and other writings. In new translations*. Garden City, N.Y. Anchor Books.
- Swann, Diana T. (1997) *Gentlemen v. Players: Alienation and the Esoteric in English music 1900 – 1939*. University of Southampton [PhD. Thesis].
- Tadday, Ulrich (ed) (2008) *Frederick Delius*. Munich: Edition Text + Kritik.
- Tanner, Michael (c. 1999) Revealing The Magic Fountain. In: *Scottish Opera: The Magic Fountain* [Programme Booklet for the 1999 Scottish Opera Production, pp 9 – 11].
- Tennyson, Alfred (1855) *Maud, and other poems*. London: E. Moxon.
- Threlfall, Robert (1973) Delius Music Manuscripts in Australia. *Studies in Music* 7: 69 – 76, 78.
- Threlfall, Robert (1974) The Early History of Koanga *Tempo* 110: 8 – 11.
- Threlfall, Robert (1977) *A Catalogue of the Compositions of Frederick Delius. Sources and References*. London: The Delius Trust.
- Threlfall, Robert (1986) *Frederick Delius: A Supplementary Catalogue*. London: The Delius Trust.
- Threlfall, Robert (1990): Editorial Report. *Frederick Delius, Complete Works*. London: Delius Trust.
- Thurston, H., (1955) *Surprising Mystics*. London: Burns & Oates.
- Todd, R. Larry (1983) *Mendelssohn's musical education: a study and edition of his exercises in composition*. Cambridge: Cambridge University Press.
- Todd, R. Larry (2003) *Mendelssohn: a life in music*. Oxford: Oxford University Press.
- Tovey, D. F. (1936 /1981) *Essays in Musical Analysis II: Concertos and Choral Works*. London: Oxford University Press.
- Treitel, Corinna (2004) *A science for the soul: occultism and the genesis of the German modern*. Baltimore: The Johns Hopkins University Press.
- Trismosin, S. (1598) *Splendor Solis in: Aureum Vellus, oder Guldin Schatz und Kunstkammer*. Rorschach am Bodensee.
- Tuchman, Maurice (ed.) (1986) *The Spiritual in Art: Abstract Painting 1890 – 1985*. Los Angeles: Los Angeles County Museum of Art and New York: Abbeville Press.
- Uhl, Frida [Frida Strindberg] (1937) *Marriage with genius*. London: Jonathan Cape.
- Underhill, E. ([1911] 1974) *Mysticism: a Study in the Nature and Development of Man's Spiritual Consciousness*. New York: New American Library.
- Unger, Ephraim S. (1828) *Das Berechnen, Verwandeln und Theilen der Figuren: ein Hilfsbuch für Geometer und für Solche, die mit Gemeinheittheilungen zu thun haben, und ein Uebungsbuch für Alle, welche von der Mathematik einen nützlichen Gebrauch zu machen wünschen*. Leipzig: Brockhaus.
- University of Cambridge & Luard, H. R. (1884) *Graduati cantabrigienses: sive, Catalogus exhibens nomina eorum quos ab ano academico admissionum MDCCC usque ad octavum diem octobris MDCCCLXXXIV gradu quocunque ornavit Academia Cantabrigiensis, e libris subscriptionum desumptus*. [Cantabrigiae], typis atque impensis almae matris Academiae Cantabrigiensis.
- Verkade, Willibrord (1930) *Yesterdays of an Artist-Monk*. New York: P.J. Kennedy & Sons.

- Villiers de L'Isle-Adam, A. (1923) *Œuvres Complètes de Villiers de L'Isle-Adam: Tome IV Axël*. Paris: Mercure de France.
- Villiers de L'Isle-Adam, A. D. & Drougard, E. (1931) *Les Trois Premiers Contes*. Paris: Les Belles Lettres.
- Villiers de L'Isle-Adam, A. trans. Guicharnaud, J. (1970) *Axel*. Englewood Cliffs, N. J: Prentice-Hall.
- Yu. F. V. [Vipper, Yu. F.] (1876) *Zolotoe delenie, kak osnovnoi morfolgicheskii zakon v prirode i isksstve (Otkrytie prof. Tseizinga)* [Golden Division as a Basic Morphological Law in Nature and Art (The discovery of Prof. Zeising)] (Moscow).
- Wallis, R. T. (1972/1995) *Neoplatonism*. London: Gerald Duckworth.
- Washington Times (afternoon edition) 12 March, 1917 p. 8: *Calls to Preparedness*.
- Webb, J. (1990) *The occult underground*. La Salle, Illinois: Open Court.
- Webster, J. H. Douglas (1950) Golden-Mean Form in Music. *Music & Letters*. 31: 238 – 248.
- Wendt, H. G. (1936/1966) *Max Dauthendey. Poet-Philosopher*. New York: AMS Press.
- White, John (2002) The Metamorphosis of Margot. *Delius Society Journal* 132: 21 – 32.
- Whiting, Steven, M. (1999) *Satie the bohemian: from cabaret to concert hall*. Oxford: Oxford University Press.
- Whitman, W. & Bradley, S. et al. (1980) *Leaves of grass: a textual variorum of the printed poems*. Volumes I – III. New York: New York University Press.
- Whittington-Egan, R. & Smerdon, G. (1960) *The Quest of the Golden Boy: The Life and Letters of Richard le Gallienne*. London: The Unicorn Press.
- Wikipedia (accessed on 05/02/10) Article on *Syphilis*.
- Wiklund, N. (1978) *The Icarus complex: studies of an alleged relationship between fascination for fire, enuresis, high ambition, and ascensionism*. Lund: Bokförlaget Doxa.
- Wilson, Jane (1989) *C. W. Orr: the unknown song-writer: including the complete Delius-Orr correspondence*. London: Thames Publishing.
- Winkler, Georg Johann (1814) *Lehrbuch der Geometrie zum Gebrauche auf Forst – Akademien, etc.* Vienna: Kaulfuß und Armbruster.
- Winkler, Georg Johann (1824) *Lehrbuch der Geometrie zum Gebrauche auf Forst – Akademien etc.* Vienna: Heubner.
- Wittstein, T. (1874) *Der Goldene Schnitt und die Anwendung desselben in der Kunst*. Hannover: Hahn.
- Wolff, Robert Lee (1971) *Strange Stories and other Explorations in Victorian Fiction*. Boston: Gambit.
- Zaehner, R. C. ([1957]/1967) *Mysticism sacred and profane: an inquiry into some varieties of praeternatural experience*. London: Oxford University Press.
- Zeising, Adolf (1854) *Neue Lehre von den Proportionen des menschlichen Körpers, aus einem bisher unerkannt gebliebenen, die ganze Natur und Kunst durchdringenden morphologischen Grundgesetze entwickelt und mit einer vollständigen, historischen Uebersicht der bisherigen Systeme*. Leipzig: Rudolph Weigel.
- Zeising, Adolf (1855) *Aesthetische Forschungen*. Frankfurt am Main: Meidinger.
- Zeising, Adolf (1884) *Der goldne Schnitt, von Dr. Adolph Zeising. Nach dem nachgelassenen Manuscript des*

Verfassers, Halle/Leipzig: W. Engelmann.

Zimmermann, M. F. (1991) *Seurat and the art theory of his time*. Antwerp: Fonds Mercator.

* * * * *

Proportion and the Esoteric: Frederick Delius & His Music

Annexe I

Scores

Delius: Two Pieces for Small Orchestra

Mendelssohn: String Quartet No 2 Op 13 Movt II

Two Pieces for Small Orchestra

On Hearing the First Cuckoo in Spring

Section 2 A →

Slow. 1 With easy flowing movement.

Flute. 37¹
4

Oboe.

Clarinets in Bb.

Bassoons.

Horns in F.

Violins I.

Violins II.

Violas.

Violoncellos.

Double-basses.

Slow. With easy flowing movement.

1. Values in red: the upper figure indicates the quaver reduction value, the lower figure shows the equivalent bar line number.

4

Fl.

Ob.

Cl.

B[♭]

H[♯] F.

V^o I.

V^o II.

Violas.

Cellos.

Basses.

mf

p

mp

pizz.

arco

397

398

5

Fl.

Ob.

Cl.

B[♭]

H[♯] F.

V^o I.

V^o II.

Violas.

Cellos.

Basses.

f

mp

pp

p

rall.

Cuckoo

43

In tempo. 6

49

Fl.

Ob.

Cl.

Bn.

Hr. P.

Vn. I.

Vn. II.

Violas.

Cellos.

Basses.

In tempo.

7

54

58

Handwritten musical score for the first movement of the Violin Concerto in D major, Op. 35, by Johannes Brahms. The score is written on ten staves, including parts for Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bass.), Horn (Horn), Violin I (Vn. I.), Violin II (Vn. II.), Viola, Cello, and Double Bass (Bass.). The key signature is D major (two sharps) and the time signature is 4/4. The score includes various musical notations such as notes, rests, dynamics (p, f, mp, pp), and articulation marks. A red vertical line is drawn through the score, and a red arrow points to the text "Entry of complete theme".

8

781
66

[illegible]

9

In Tempo.

10

853
72

853

Fl.

Ob.

Cl.

B.

H.

Vn. I.

Vn. II.

Viola.

Cello.

Bass.

Section 2 A' →

rall. In tempo. 11

973 82

Fl.

Ob.

Cl.

B[♭]

B[♭] & F.

V^{na} I.

V^{na} II.

Violas.

Cellos.

Basses.

mp *p* *rall.* *In tempo.*

rall poco - In tempo. Very slow. 1099 1135

93 96

Fl.

Ob.

Cl.

B[♭]

B[♭] & F.

V^{na} I.

V^{na} II.

Violas.

Cellos.

Basses.

mp *p* *rall poco* *In tempo.* *Very slow.* *p dim.* *ppp*

Two Pieces for Small Orchestra

Summer Night on the River

Very quietly.

Section 3 A →

Flutes. *pp*

Oboe. *pp*

Clarinets in Bb. *pp*

Bassoons. *pp*

Horns in F. *pp*

Violins I. *pp*

Violins II. *pp*

Violas. *pp*

Violoncellos. *pp*

Double-basses. *pp* muted con sord.

Very quietly.

1 1207
104

Fl. *pp* *p* *mp* *mf*

Ob. *pp* *p* *mp* *mf*

Cl. *p*

B^b *pp*

H^b F. *mp*

Vⁿ I. *p* muted con sord.

Vⁿ II. *p* muted con sord.

Viola. *p* muted con sord.

Cello. *p* muted con sord.

Basses. *p* pizz. *p*

1243
108

2

Fl.
Ob.
Cl.
Bⁿ
H^r & P.
Vⁿ I.
Vⁿ II.
Violas.
Cellos.
Basses.

pizz.
arco
pizz.
dim.
arco
dim.
arco
dim.
arco
mp dim.

Fl.
Ob.
Cl.
Bⁿ
H^r & P.
Vⁿ I.
Vⁿ II.
Violas.
Cellos.
Basses.

a 2
p
pp
a 2
p
pp
arco
p
pp
p
pp

[3]

120

120.

Fl.

Ob.

Cl.

B^{ss}

H^{rn} F.

Section 3 B →

Vⁿ I.

Vⁿ II.

Violas.

Cello Solo

Cellos.

Basses.

Section 3 B →

Fl.

Ob.

Cl.

B^o

H^o F.

Viol. Solo

Vn^s I.

Vn^s II.

Viola. Solo

Violas.

Cello. Solo

Cellos.

Basses.

p

pp

pizz.

arco

1411 4
128

Fl.

Ob.

Cl.

B♭

Hr. P.

Viol. Solo

Vn. I.

Vn. II.

Viola Solo

Violas.

Cello Solo

Cellos.

Basses.

mp

p

pp

arco

pizz.

rall.

1483 5
134

In tempo.

Fl.

Ob.

Cl.

B♭

Hr. P.

Viol. Solo

Vn. I.

Vn. II.

Viola Solo

Violas.

Cello Solo

Cellos.

Basses.

mp

p

mf

mf a 2

mf

arco

pizz.

In tempo.

Very quietly.

1651
149

Fl.

Ob.

Cl.

B^{ss}

H^{rn} P.

Viol. Solo

V^{ns} I.

V^{ns} II.

Viola. Solo

Violas.

Cello.

Bass.

pp

mp

mf

Echo

pizz.

cresc.

all

on the bridge

7 In tempo. The melody becoming softer and softer as if dying away in the distance.

Slower.

Fl.

Ob.

Cl.

B^{ss}

H^{rn} P.

Viol. Solo

V^{ns} I.

V^{ns} II.

Viola. Solo

Violas.

Cello. Solo

Cello.

Bass.

p

pp

muted con sord.

In tempo.

Slower.

Mendelssohn: String Quartet No 2 Op. 13 – Movement II

Section A →

x

252 Adagio non lento.

*Bar lines highlighted in red mark the external and internal boundaries of the Complete GS Pattern.

* Bar lines highlighted in blue mark musical transitions within each part of the Complete GS Pattern.

282

Close of
1st section of Fugue

290

297 poco più animato. Interlude

301

Section B →
Fugue Cont. Y

305

311

144

I

are

317

323

Section B' →

329

T

335

335

ff *espress.*

339

339

Section A' →

343

Section A' →
Tempo I. X'

352

Close

352

cresc. *f* *p* *espress.* *f* *dim.* *p* *dim.*

cresc. *f* *p* *espress.* *f* *dim.* *p* *dim.*

cresc. *f* *p* *espress.* *f* *dim.* *p* *dim.*

cresc. *f* *p* *espress.* *f* *dim.* *p* *dim.*

f *p* *f* *dim.* *p* *dim.* *pp*

Close

362

362

The musical score consists of three staves. The top staff is in treble clef, the middle in alto clef, and the bottom in bass clef. The music features a variety of note values, including eighth and sixteenth notes, as well as rests. Dynamic markings such as *dolce*, *legato*, *espress.*, *dim.*, *p*, *f*, and *pp* are used throughout. The notation includes slurs, ties, and phrasing marks. The page number 362 is visible at the top left.

369

369

This system contains measures 11 through 15. The vocal parts continue with their melodic lines, with dynamics ranging from *pp* to *ppp*. The piano accompaniment features a prominent eighth-note pattern in the right hand and a more active bass line. Dynamics include *sf*, *p*, and *dim.*. The word *espressivo* is written below the piano part in measure 12.

Proportion and the Esoteric: Frederick Delius & His Music

Annexe II

A3 Figures, Diagrams, Plates and Texts.

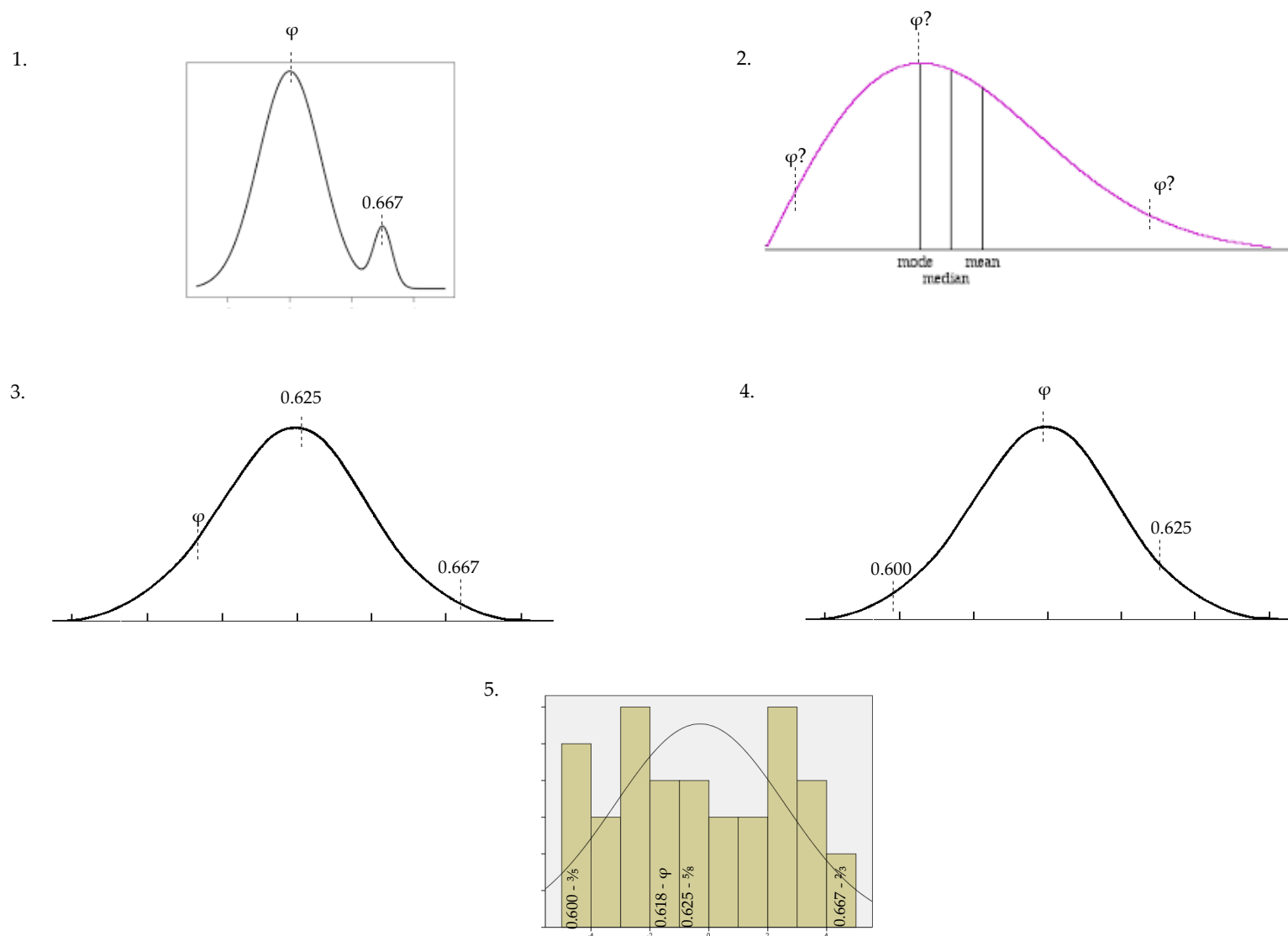
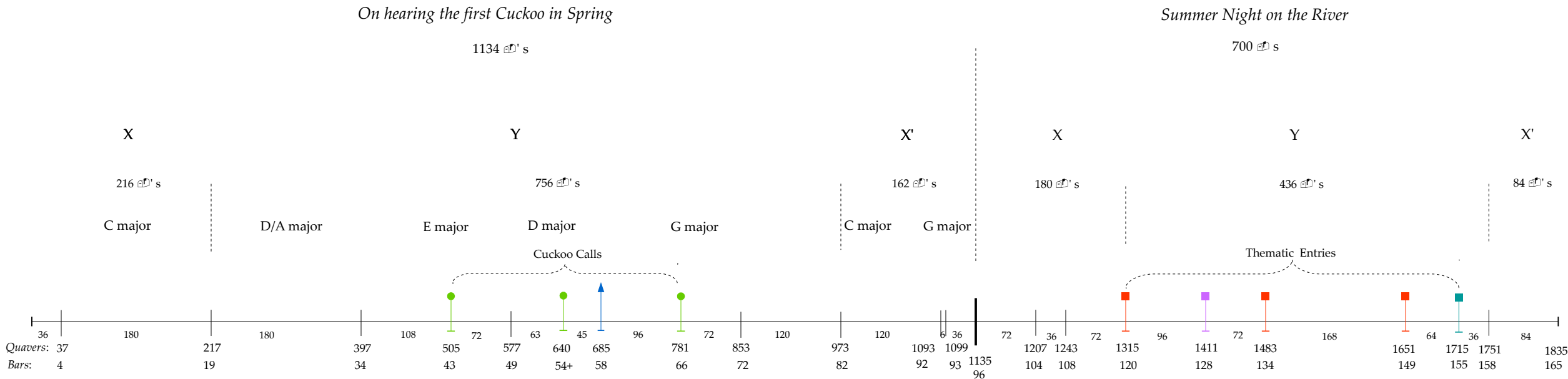


Figure 1.1 Hypothetical relative positions of ϕ within large data samples intended for proportional analysis. The samples may be represent (for example) the proportion: (bars in the exposition + development)/total bars in the complete movement (as in sonata-form movements):

- 1. Bimodal distribution:** the values peaking at ϕ and 0.667 together with the *relative narrowness* and *pointedness* of the two overlapping curves, suggest ϕ and 0.667 had been consciously used.
- 2. Skewed distribution:** only the situation in which ϕ approaches the modal value would suggest that this proportion was of any significant occurrence.
- 3. Normal distribution – 1:** the peak value at 0.625 (%) would suggest that value rather than ϕ would have occurred either intuitively or consciously.
- 4. Normal distribution – 2:** the peak value, now at ϕ , would indicate a significant presence of ϕ – either conscious or intuitive.
- 5. 'Flat-topped' distribution:** shows that although some values near ϕ occur, they were no more significant or abundant than their remaining neighbouring values, and were unlikely to have been 'planned'.

Two Pieces for Small Orchestra

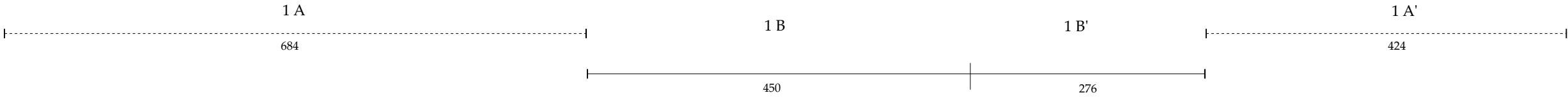
1.



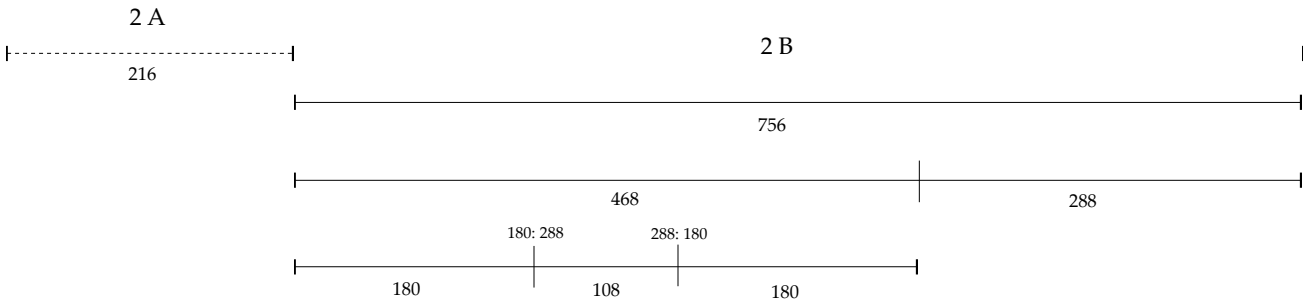
2.



3.



4.



5.

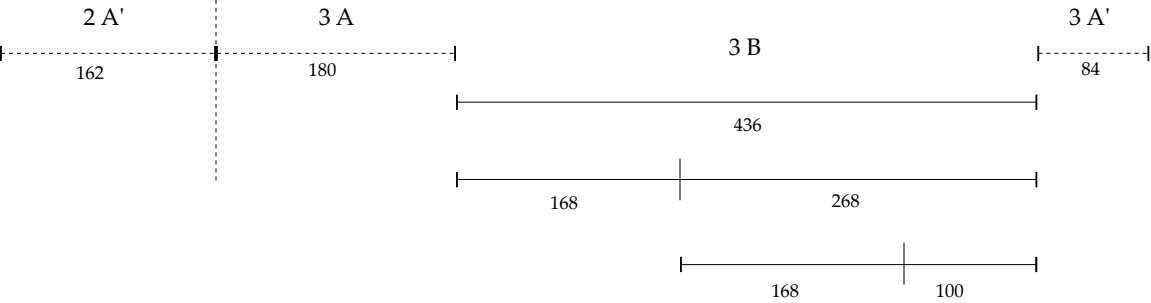


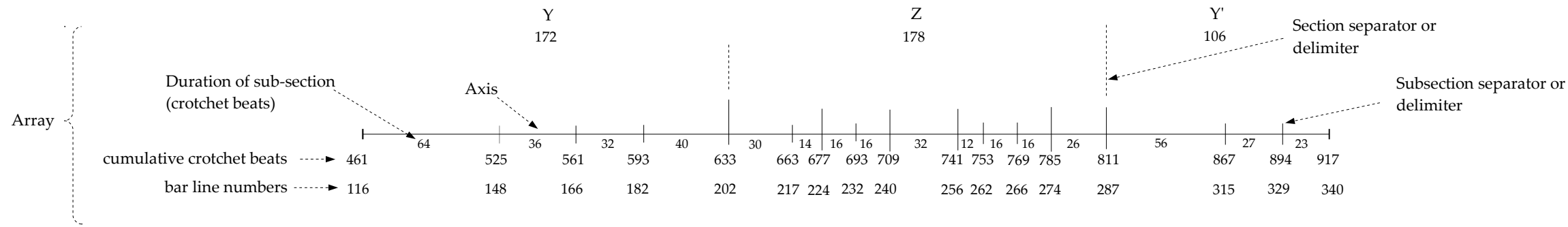
Figure 1.2 *Two Pieces for Small Orchestra* – (1911–1912):

1. The axis scale is in *quavers*. In the *First Cuckoo* the blue arrow marks the starting point of the complete quotation of the Norwegian folk song *I Ola dalom*. Entry points of the main theme in the central part of *Summer Night* are indicated in red, purple and turquoise.
2. Showing the overall Golden Section relationship between the two movements (1134: 700 quavers).
3. A further sector in Golden Section proportion (450: 276 quavers) aligned under the first at quaver line 1135, forms a 'pattern' with it which defines the 'form' of the complete work.
4. & 5. The middle sections (2 B and 3 B) of *The First Cuckoo* and *Summer Night* are then further subdivided by use of the Golden Section.

For further details see the text of Chapter 1.

Type I GS Proportioning and the Type I Pattern.

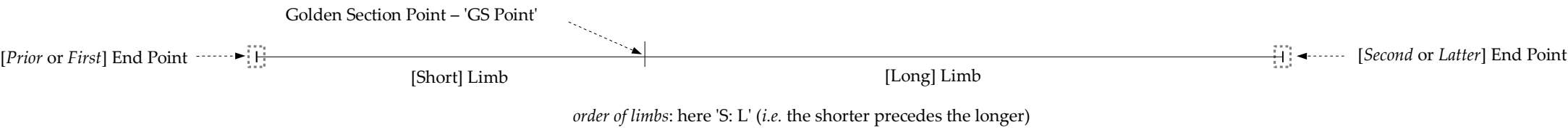
1. Axis and Array. The Array shows selected musical features relevant to the proportioning techniques discussed:



A, B and A' indicate different sections of a GS pattern.

Y /Y' indicate similar or repeating sections of music.
Y, Z indicate contrasting sections of music.
accompanying values = duration of sections (in crotchets).

2. The Golden Section (GS) Division:

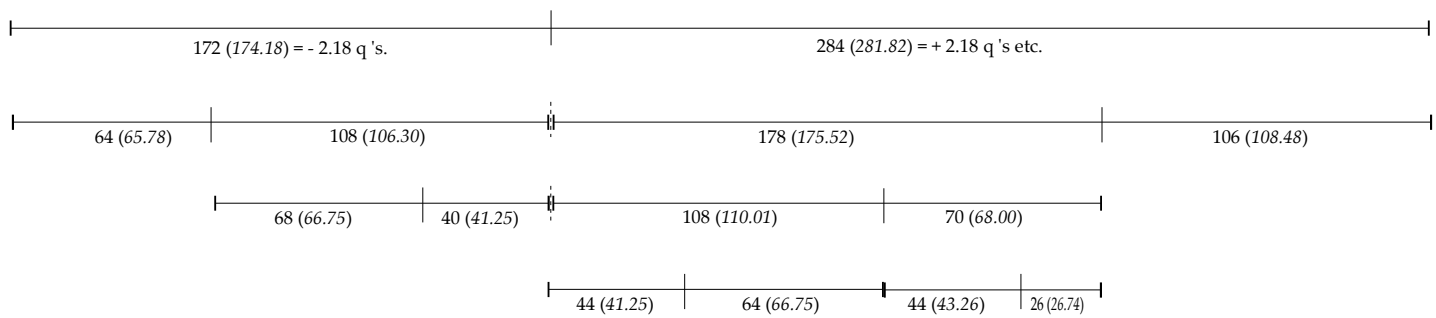


3. Type I GS: Sub-sectioning:

Primary [GS] Division:

values for precise GS proportions are italicized :

GS Subdivisions:



172: 284 = GS \pm 2.18q 's
0.622807 = φ + 0.004773

Estimation of φ (0.618034):

1. Limb values are added:
 $172 + 284 = 456$
2. The values of an exact GS proportion obtained:
 $456.00 \times \varphi = 281.82$
 $281.82 \times \varphi = 174.18$
3. Actual limb values deviate by ± 2.18 q 's
4. Actual GS approximation obtained:
 $= 284/456 = 0.622807$
 $= 0.004773$ above the φ value .

4. Type I GS Pattern

Tripartite Type I GS Pattern ABA' in combination with an XYX' (ternary) musical form:



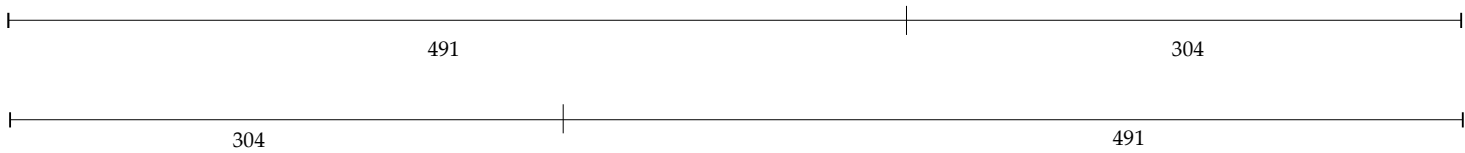
Figure 2.1 Type I GS proportioning and the Type I GS Pattern. Examples are taken from the Florida Suite I: Daybreak – (bars 116- 339) and shown in crotchet beats:

1. Illustration of some general descriptive terms used.
2. Terms used in describing a single GS division.
3. Serial sub-division of an initial passage spanning 456 crotchet beats into approximate GS proportions. The method used in calculating deviations from the precise GS value ($\varphi = 0.618034$) is shown (R.H.). Generally the ratio of *part: whole* (i.e. 'proportion') will be adopted in the current presentation.
4. The Type I matched GS Pattern: The A and A' sections are in GS proportion to one other, and at the same time musically 'matched' so that the ABA' GS pattern and the ternary XYX' musical design have become conflated.

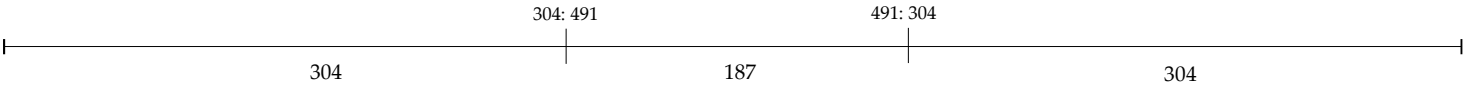
The Symmetrical GS Pattern

1 a.

A passage is divided both at its L: S & S: L GS points:

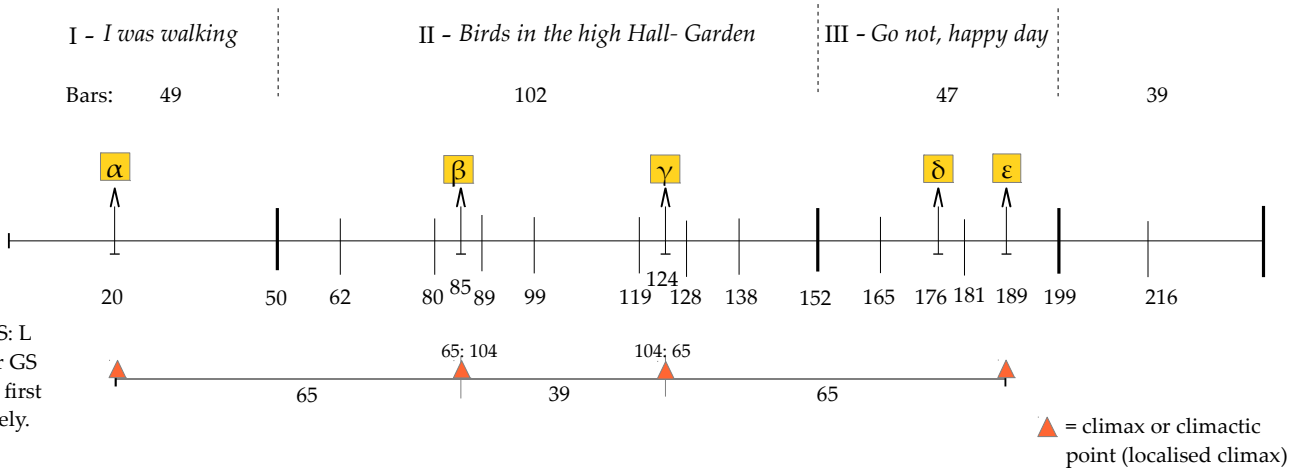


The two points together impart a symmetrical shape to the passage:



A sense of symmetry is maintained when similar & relatively 'strong' or 'conspicuous' musical events occur at each GS point:

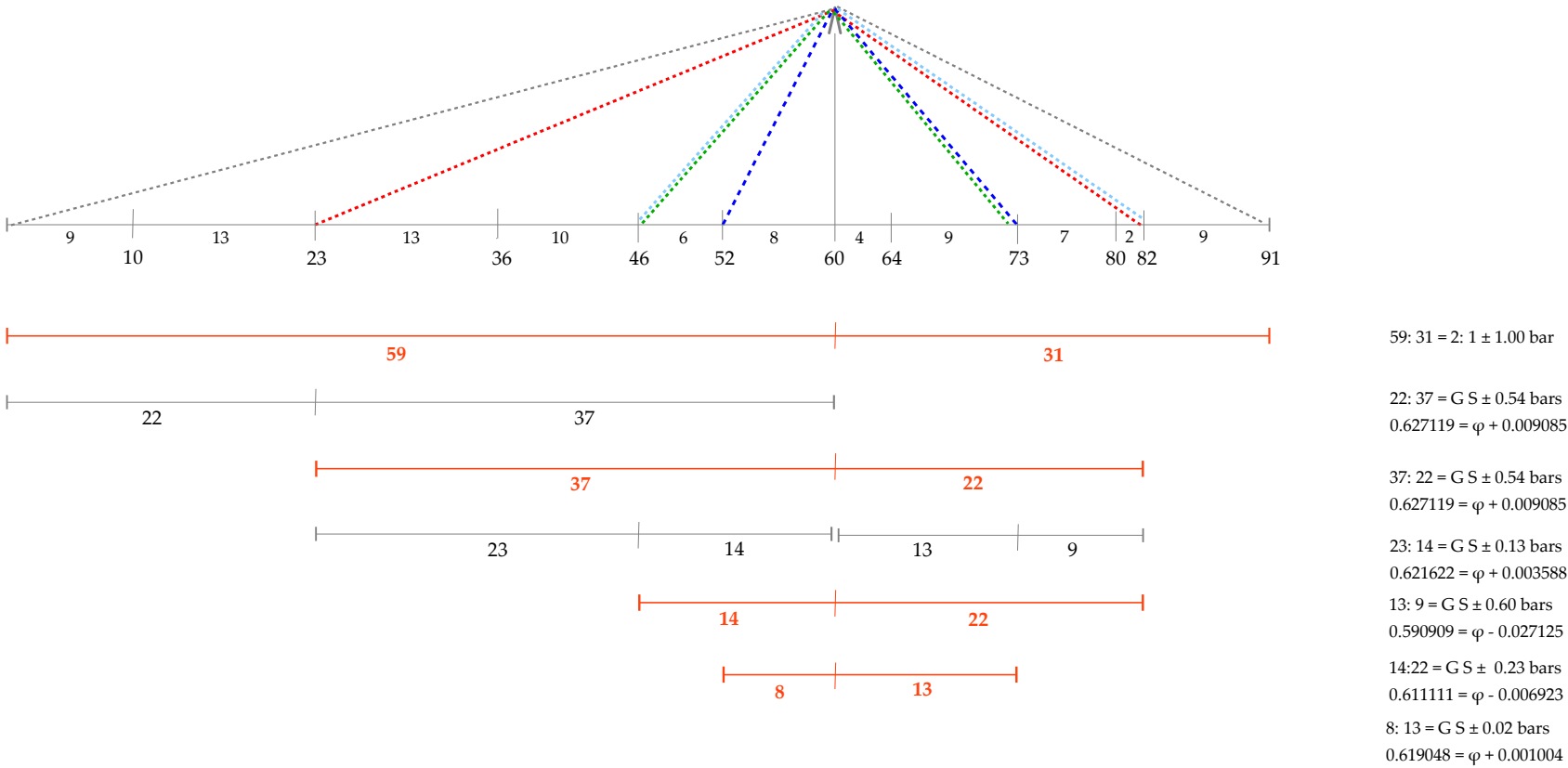
1 b.



Climaxes β, γ are placed at the S: L and L: S GS points of the 169-bar GS division. Climaxes α, ϵ are at the first and second end points respectively.

The 'Ascent Formation'

2 a.



2 b.

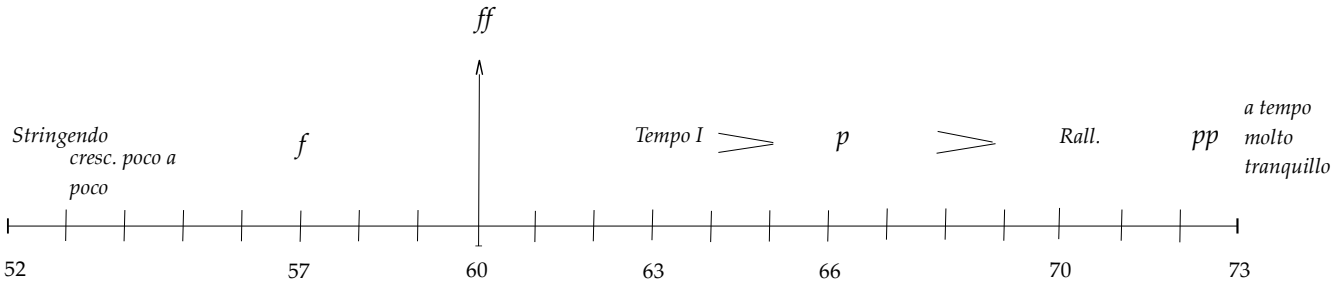
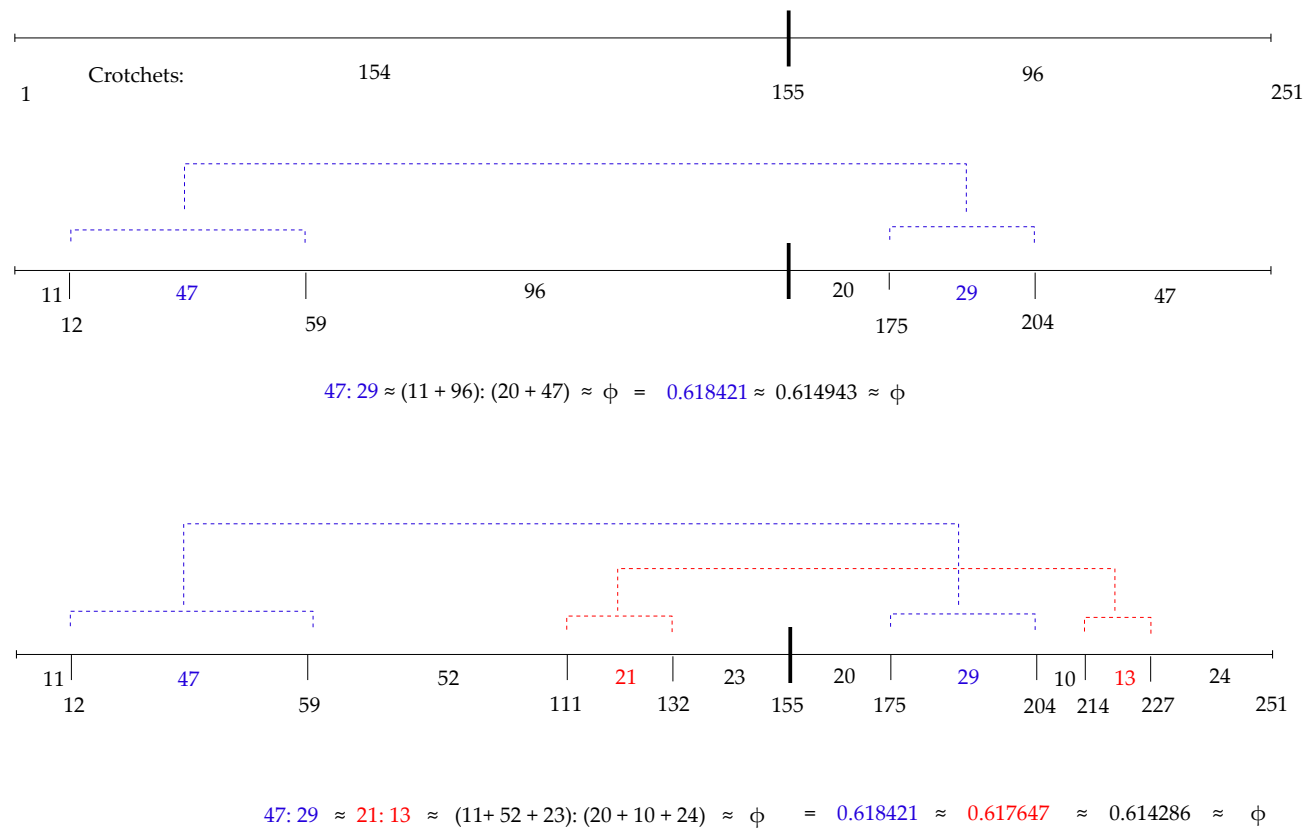


Figure 2.2 The GS Symmetrical Pattern and the Ascent Formation. Examples are taken from 1 a: the *Florida Suite* (movts I – IV) shown in bars (cf. Fig. 3.3.1), 1 b: *Maud* (movts I – III) shown in bars (cf. Fig. 3.7.2), and 2 a & 2 b: *Sakuntala* shown in bars (cf. Fig. 2.12):

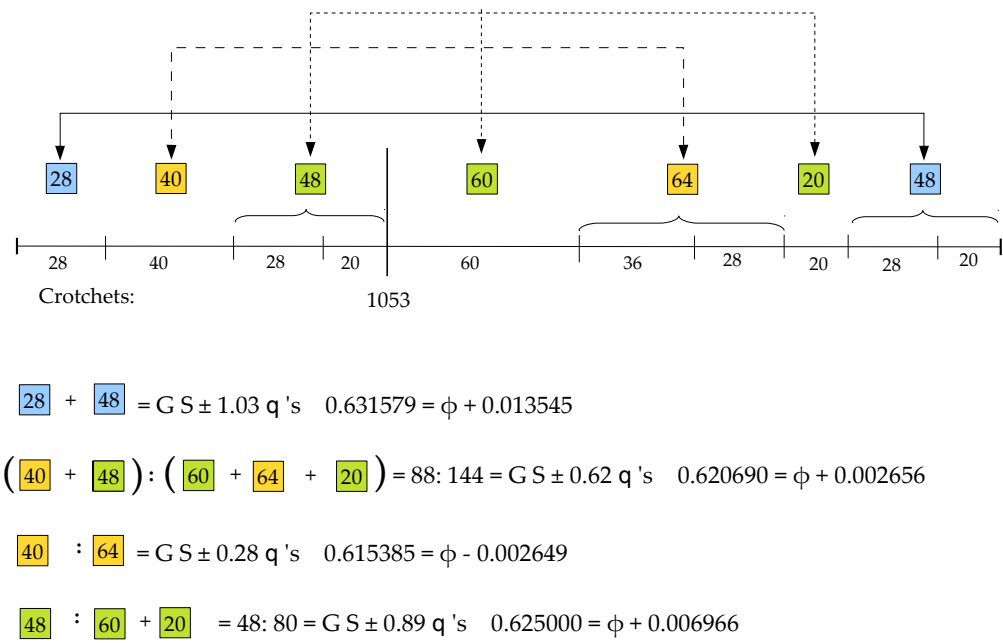
- 1 a. Symmetrical GS Pattern encompassing the *Florida Suite* 1 b. Symmetrical GS Pattern in *Maud*. The two GS points and two end points mark the four climaxes shown.
- 2 a. A hierarchy of divisions has its common point at the main climax of *Sakuntala*. The 'approach' and 'return' from the climax can therefore be seen as a traversal of a series of different proportions as shown. Beneath the diagram, the member divisions within the hierarchy are drawn in red, and GS subdivisions within individual limbs are shown in black.
- 2 b. Details of the 8: 13 bar passage in 2 a above, showing the grading of dynamics and of tempo indications in the 'approach to' and 'return from' the climax.

The Pairing of GS Complements from Opposite Sides of a GS Division

1.



2.



3.

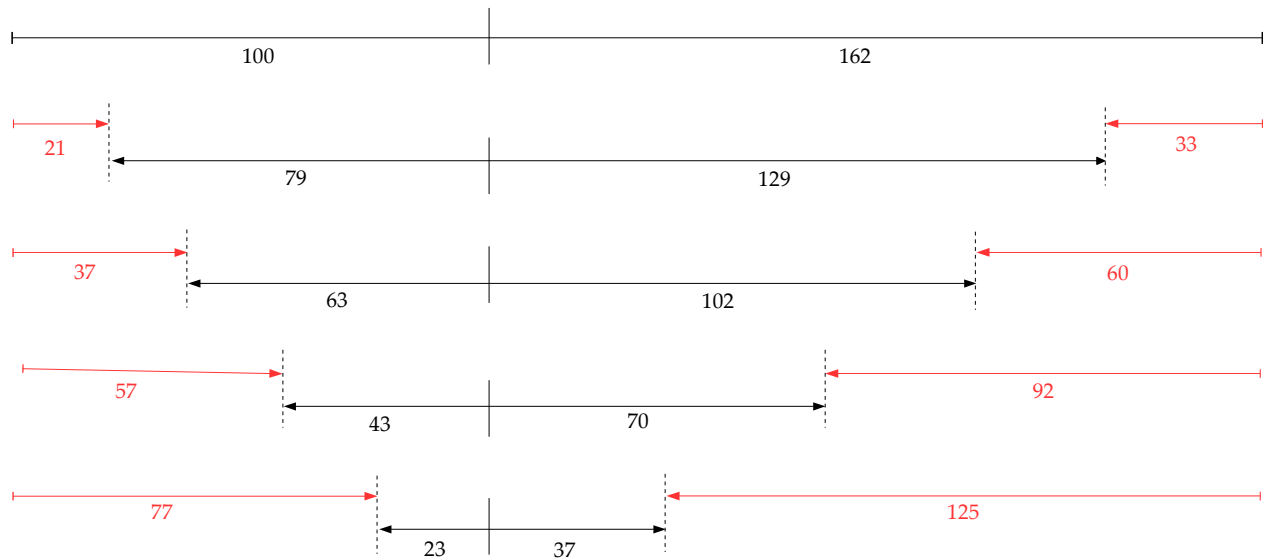
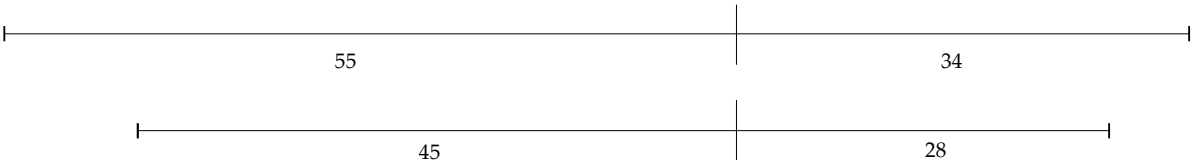


Figure 2.3 Pairing of GS Complements from Opposite Sides of a GS division :

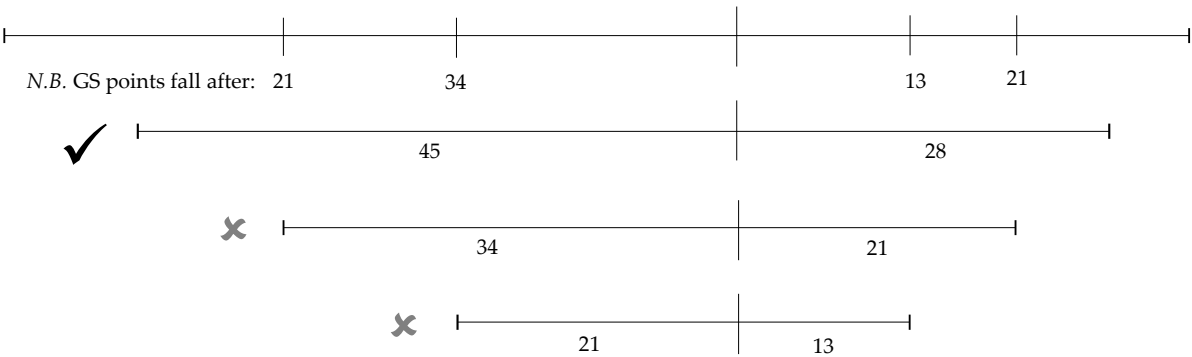
1. The successive partitioning off of (here) L: S GS complements, one either side of (here) an existing L: S division, leaves the sums of the remaining crotchet totals either side of the GS point also in GS proportion. The individual members of any such GS pairing may also be variously subdivided, and, (within the limits of their respective short or long limb), be redistributed.
2. An example of this procedure may be found in the *Florida Suite* (Leipzig c. 1887, revised Paris 1889) Movemnt II – but where the parent division is in S: L format (see also Figure 3.3.5).
3. An important application of this principle lies in the formation of the *Complete GS Pattern* and in its extension, the *GS hierarchy* or *GS set*. Here, the partitioning off of GS compliments may be visualised as either occurring in an *outward direction from the common GS point* (hence 79: 129, 63: 102 etc) or

Type II GS Proportioning : The Complete Golden Section Pattern (CGSP):

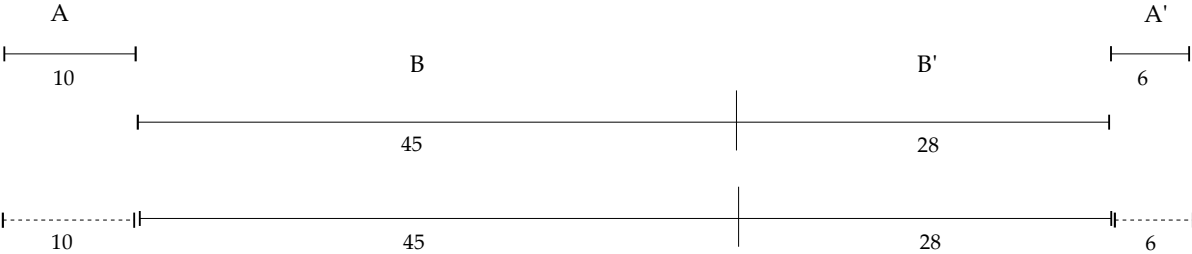
1. Two-member GS Hierarchy (or Set):



1 a. N.B. The end points of the second member must not cut the limbs of the upper member at either of its two main GS points:



2. The Complete GS Pattern formed by the above set. Two formats are illustrated:



3. Estimates of φ :

$$A'/A = \underline{A}/(\underline{A'} + \underline{A}) = B'/B = \underline{B}/(\underline{B'} + \underline{B}) = A' + B'/(A + B) = \underline{A + B}/(\underline{A + B} + \underline{B' + A'}) = \varphi$$

Estimates of, and Deviations from φ :

$$6/10 \approx 10/(6 + 10) \approx 28/45 = 45/(28 + 45) \approx (6 + 28)/(10 + 45) \approx (10 + 45)/(10 + 45 + 28 + 6) \approx \varphi (0.618034).$$

$$0.600000 \quad 0.625000 \quad 0.622222 \quad 0.616438, \quad 0.618182 \quad 0.617978$$

$$-0.018034 \quad +0.006966 \quad +0.004188 \quad -0.001597 \quad +0.000148 \quad -0.000056$$

Figure 2.4 Formation of the Complete GS Pattern (CGSP):

1. Two-member GS set or hierarchy. 1 a. The end points of the lower member of the pair should not cut the limbs of the upper member at either of their two individual GS points.

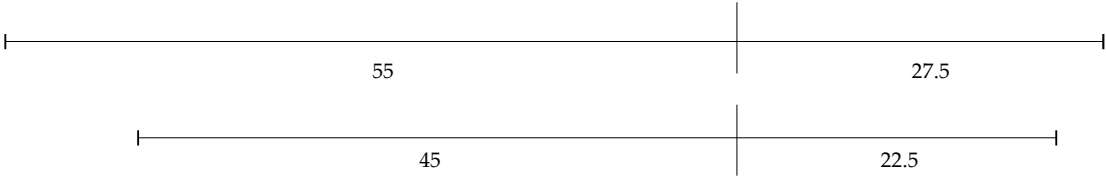
2. The Complete GS Pattern – shown here in two formats. 3. Estimates of φ from the sample CGSP.

Generally the ratio *part: whole* (i.e. 'proportion' written above in bold figures) will be adopted for the current presentation.

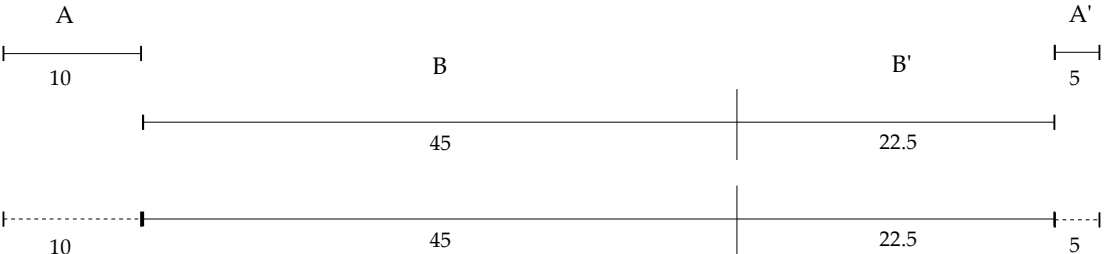
Note also that the deviation of estimates from φ is relatively high where smaller whole numbers are employed as compared to where larger values are assessed.

2: 1 Proportioning : The Complete 2: 1 Pattern :

4. Two-member 2: 1 Hierarchy (or Set):



5. The Complete 2: 1 Pattern formed by the above set. Two formats are shown:



6. Estimates of the equivalent ratios to those made opposite for the CGSP:

$$A'/A = \underline{\underline{A}}/(\underline{\underline{A'}} + \underline{\underline{A}}) = B'/B = \underline{\underline{B}}/(\underline{\underline{B'}} + \underline{\underline{B}}) = A' + B'/A + B = \underline{\underline{A + B}}/(\underline{\underline{A + B}} + \underline{\underline{B' + A'}}) = \gamma (0.666667) ?$$

Estimates of γ :

$$5/10 \approx 10/(5 + 10) \approx 28/45 = 45/(22.5 + 45) \approx (5 + 22.5)/(10 + 45) \approx (10 + 45)/(10 + 45 + 22.5 + 5)$$

$$0.500000 \quad \underline{\underline{0.666667}} \quad 0.500000 \quad \underline{\underline{0.666667}} \quad 0.500000 \quad \underline{\underline{0.666667}}$$

Figure 2.5 Formation of the Complete 2: 1 Pattern:

4. Two-member 2: 1 set or 2: 1 hierarchy.

5. The Complete 2: 1 Pattern – shown in two formats.

6. Estimates of γ (0.66666R) made from the equivalent ratios assessed in the CGSP (opposite).

The ratio *part: whole* (i.e. 'proportion' – indicated by double underlining) – yields the value

0.666666R (or '2 parts in 3'). The remaining values obtained are '1 part in 2' – i.e. 0.500000.

Type II GS Proportioning : The Extended GS Hierarchy or GS Set:

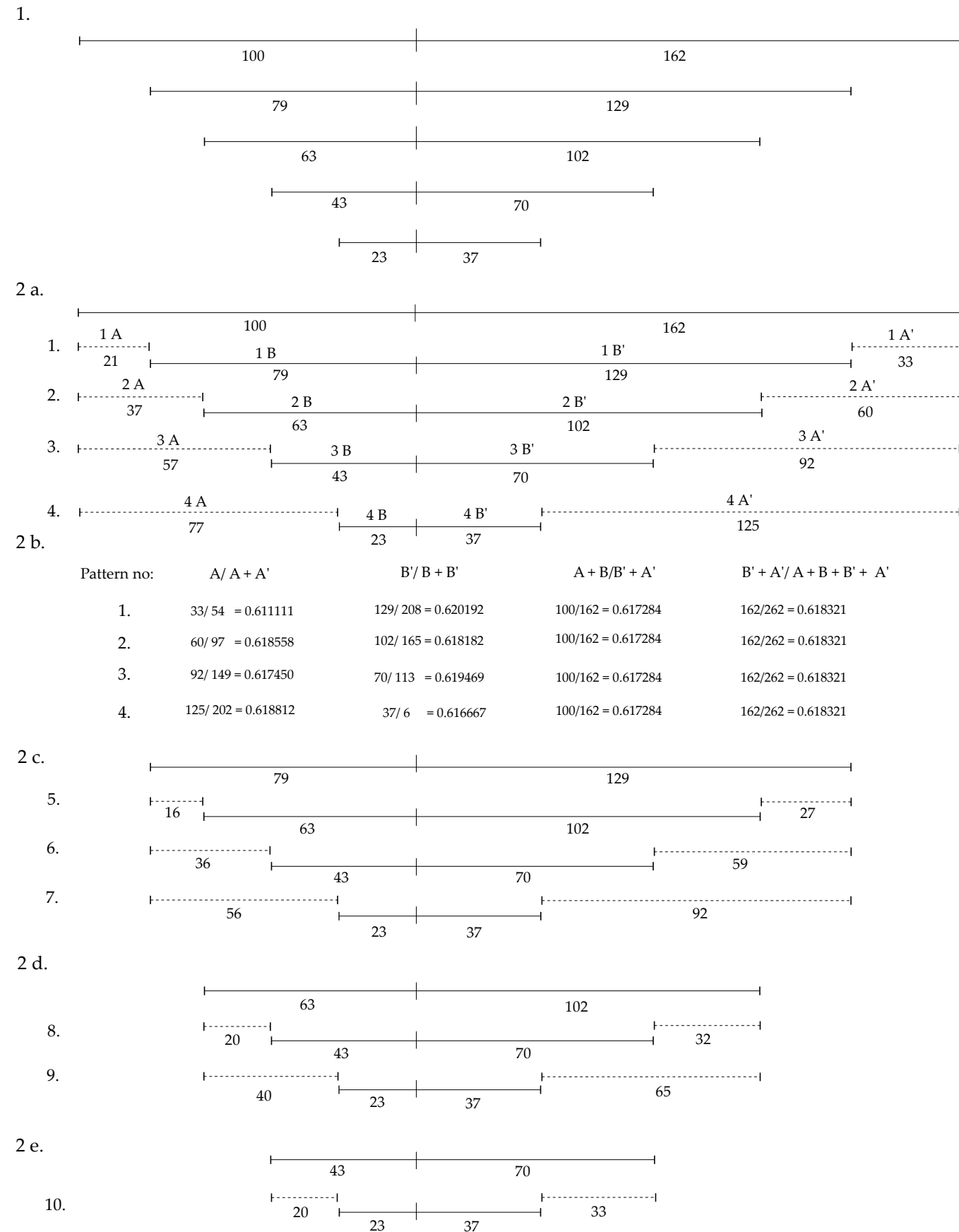


Figure 2.6 The GS Set or GS Hierachy

- Five-member GS set*.
- The formation is shown of the top four CGSP's *i.e.* by combining the uppermost member (100: 162 bars) successively with the four remaining members of the hierarchy.
- Calculation of estimates of φ within each CGSP. N.B. Values remain constant in the last and penultimate columns.
- Formation of the remaining six CGSP's

*The example is taken from movts III and IV of the early String Quartet (1888) see Figure 2.10

Type II GS Proportioning : The Switched Complete GS Pattern:

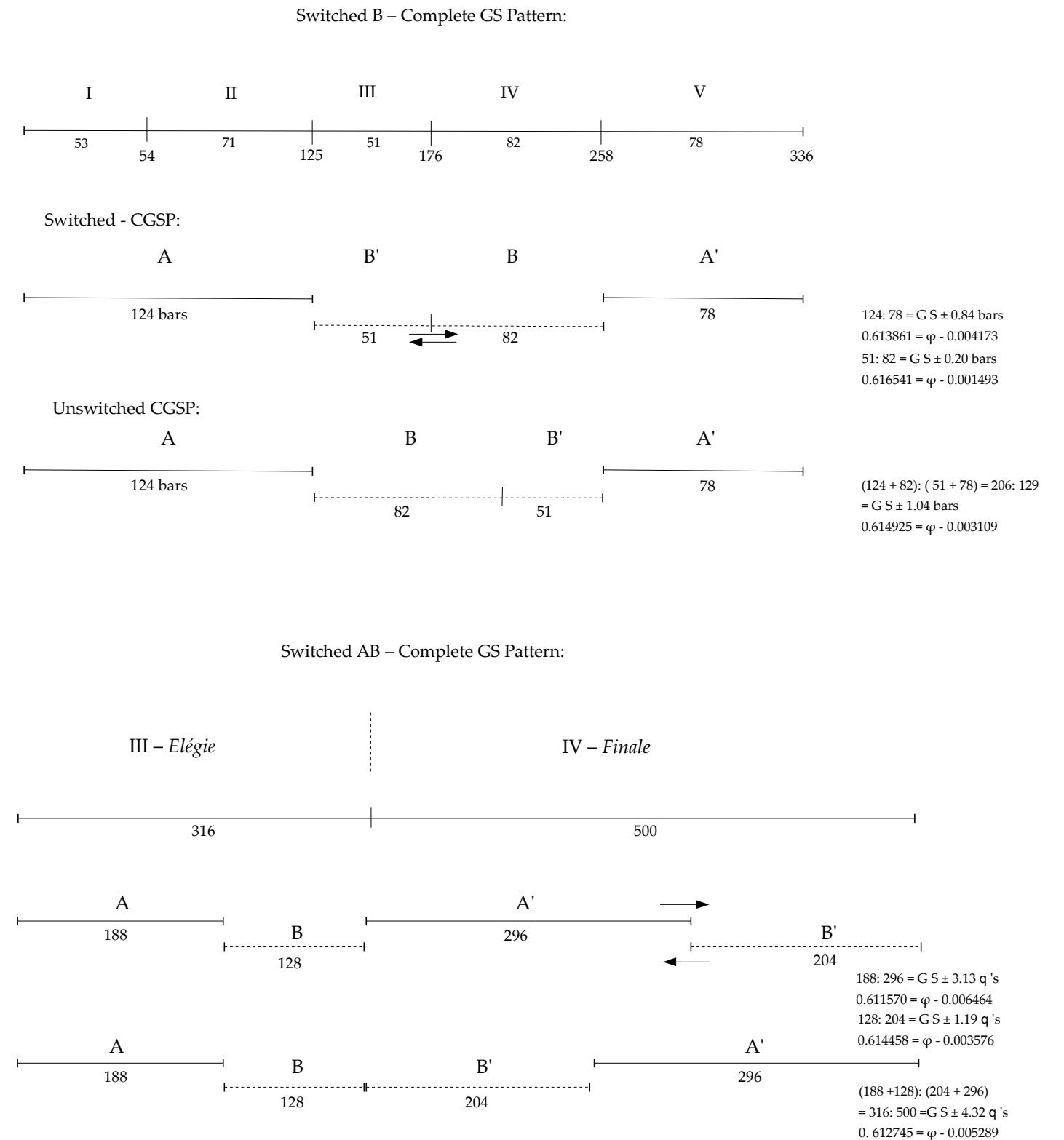
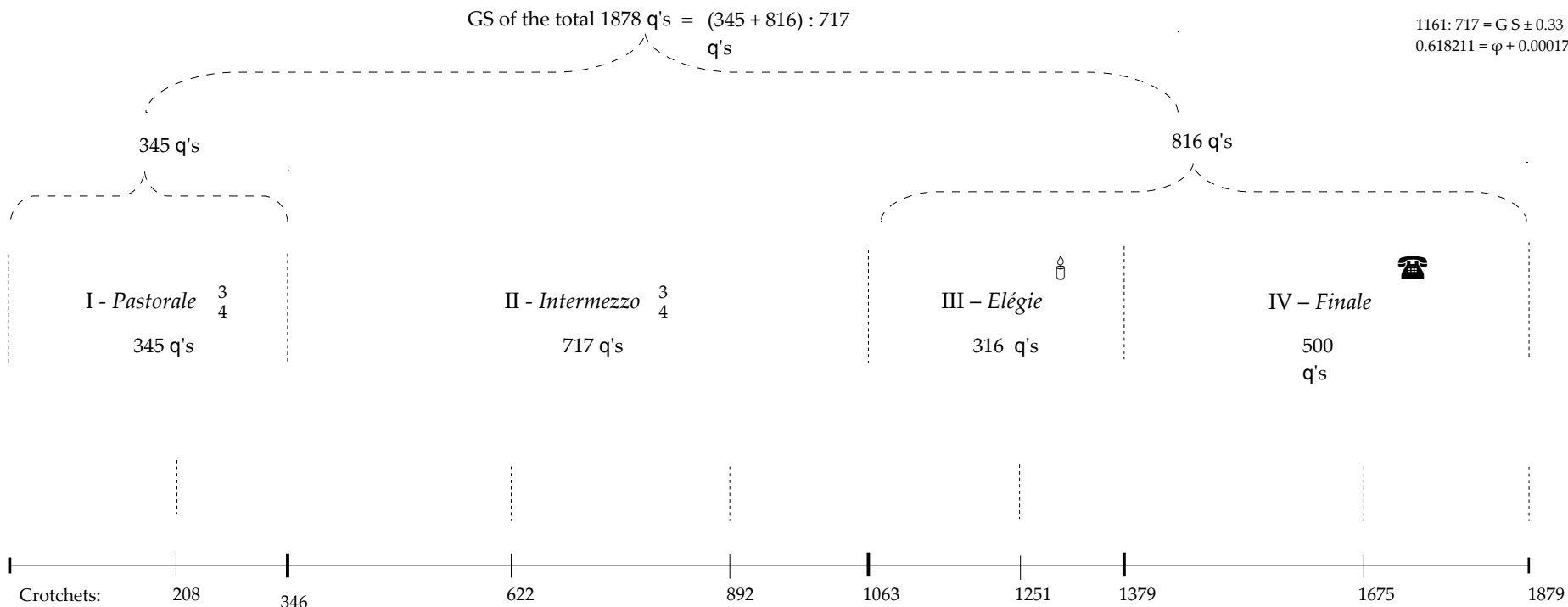


Figure 2.7 The Switched Complete GS Pattern* **:

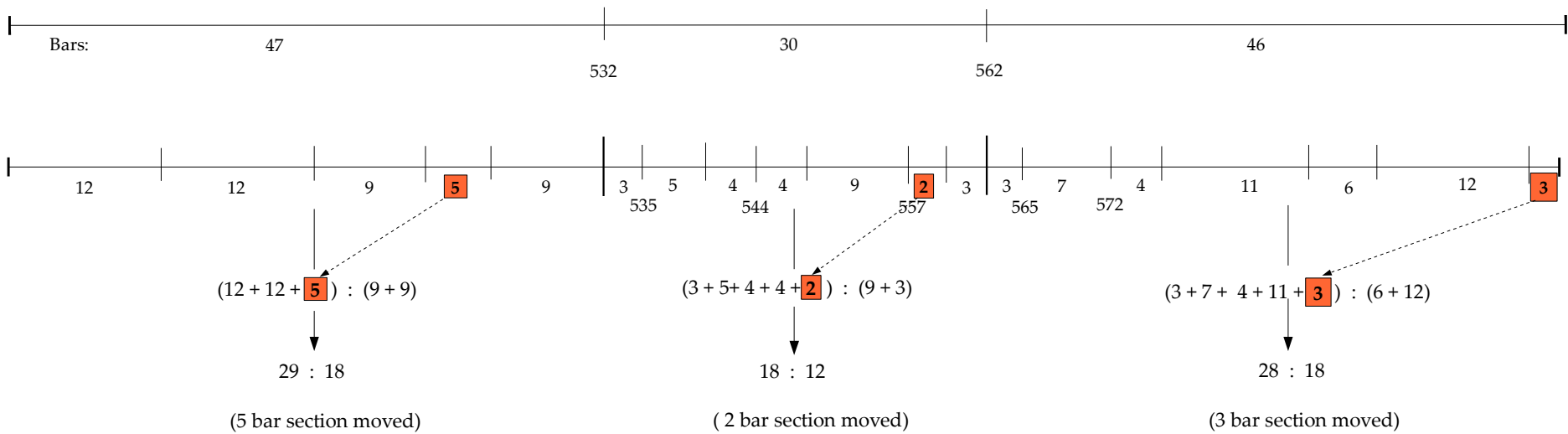
- Reversal of the two B sections in the upper diagram (re-)establishes a complete (unswitched) GS pattern. A reversal of the two A sections (instead of the B) will also form an unswitched pattern *viz.* 78||51:82||:124 bars.
- In the lower diagram switching A' with B' (or A with B) will also establish a CGSP.
- *The upper example is taken from *Five Songs from the Norwegian* (c. 1888 – 9 - see Figure 3.5.1). **The lower is from the *Suite for Violin & Orchestra* (c. 1888 - see Figure 2 .12.1 no 5).

Distributing and Re-ordering the Products of GS Subdivision

1. Redistribution of GS products over an entire work:



2. Simple redistribution involving single passages:



3. Cycle of subdivision and redistribution involving several stages::

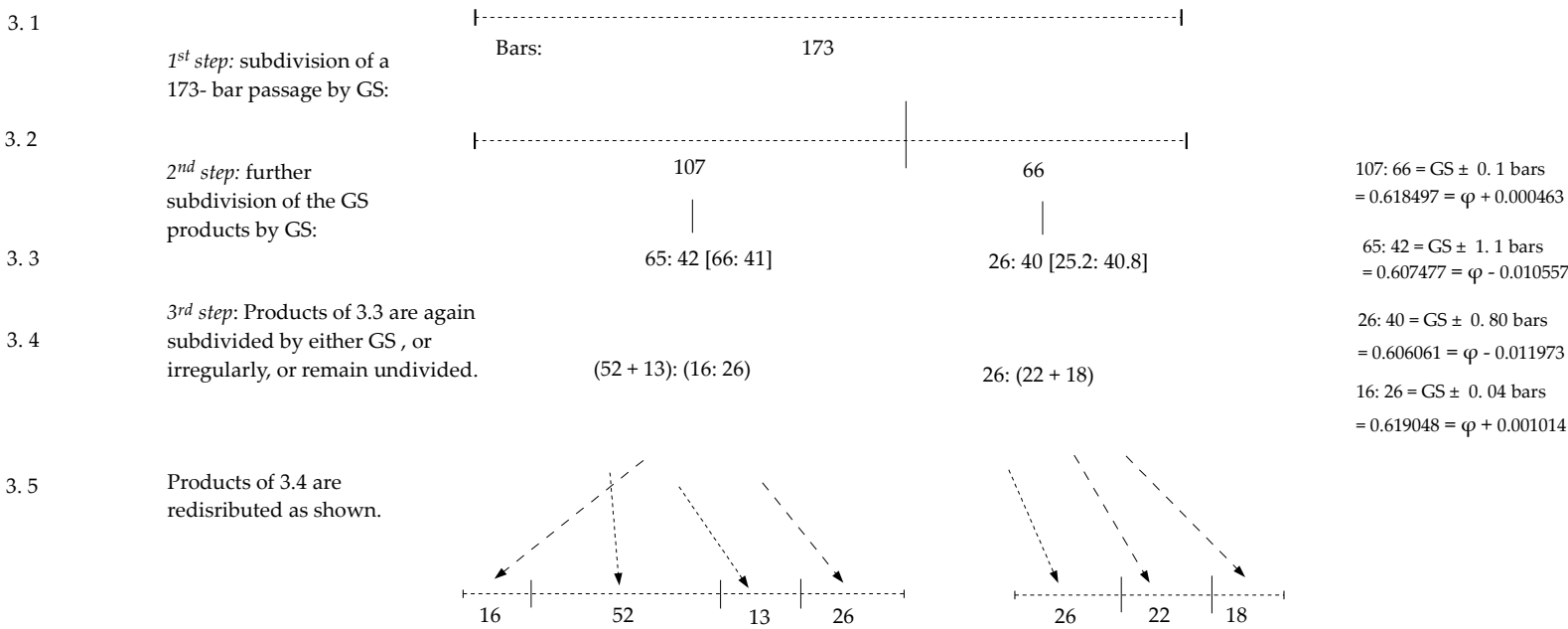
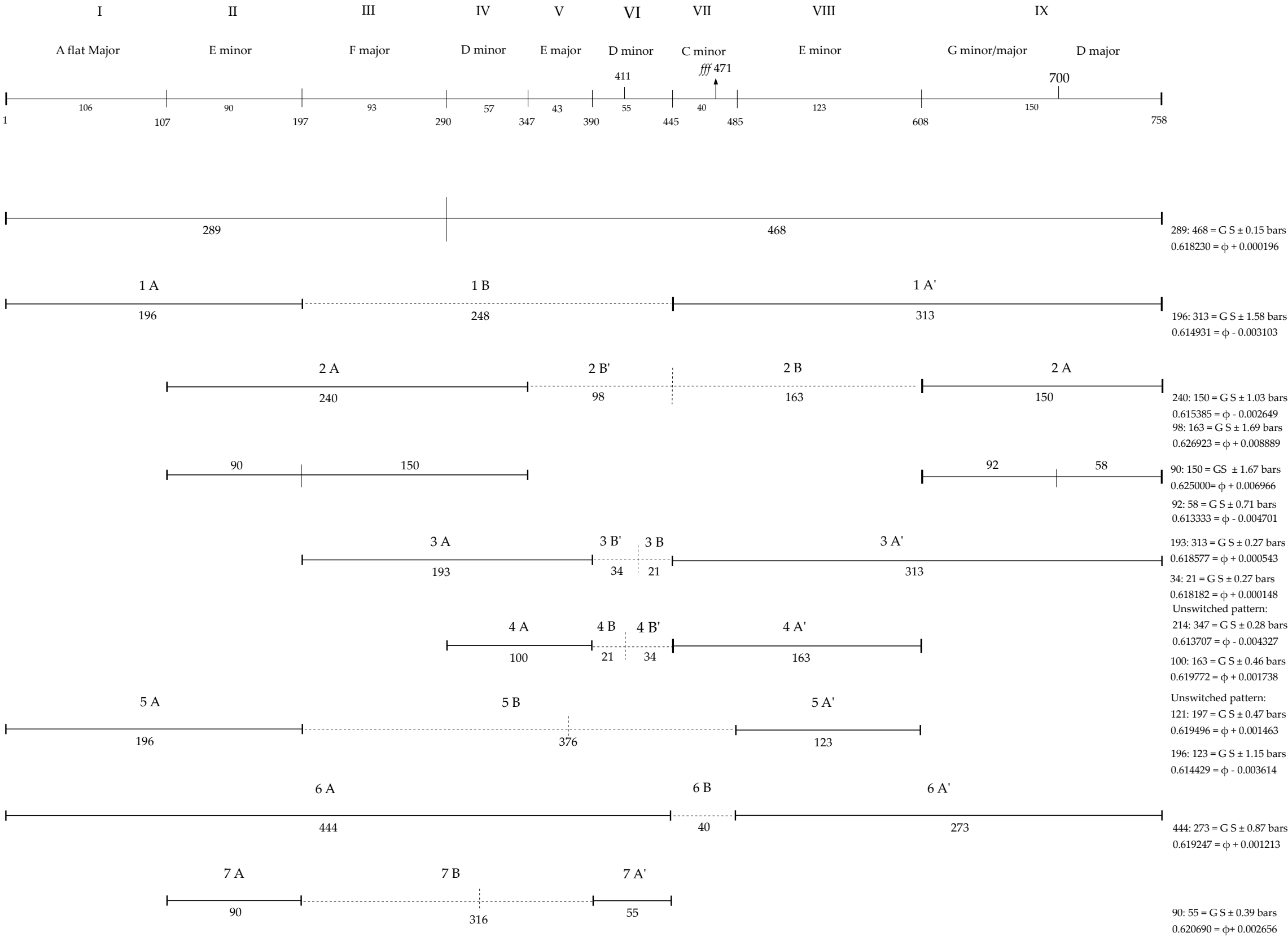


Figure 2.8 The Redistribution and Reordering of the Products of GS Division and Subdivision:

1. The total crotchet beats comprising movements I + III + IV = 1161 and movement II = 717 i.e. the two values are in precise GS proportion, indicating that a span of 345 crotchets has been separated from the 1161 value and transferred to constitute the crotchet count allotted to movt I (The example is taken from the *Suite for Violin* c. 1888 see Figure 2.12.1 no 1)
2. Within three arrays, each of 5- 7 bar sections of music, shifting one section in each array demonstrates that each derives from an initial GS subdivision (the example is from *Paa Vidderne* movement VIII (1888) – see Figure: 2.9.7b).
3. Cycles involving initial stage(s) of subdivision by GS, followed by stage(s) including irregular subdivision and redistribution of the resulting components are frequently found in Delius' compositions. The present example is from *Insulin* (1890 – 92) Act II)

Paa Vidderne – Movements I - IX

1. *Paa Vidderne* – indicating bar numbers, main keys, etc of the nine individual movements.
2. Primary S: L GS division, showing GS point at the III/IV juncture. The hunter (in Ibsen's poem) makes his first entry at the beginning of Movement IV.
3. ABA' (tripartite) pattern -Type I: all three sections differ in musical content but the outer sections are in GS proportion.
4. Complete GS Pattern (quadripartite) but with switch-ing of the two B sections: 98: 163 for 163: 98 bars.
- 4 a. Subdivision of the A and A'sectors of the above switched pattern (Type I proportioning). In section A', bar line 700 marks the beginning of the *maestoso* final D major section of IX.
5. Complete GS pattern (quadripartite). The B section can be either switched, 34: 21 bars, or un-switched, 21: 34 bars - the alternative GS points marking the start of stanza 8 or 5 of the text.
6. Complete GS pattern (quadripartite) where the B section may being either switched, 34: 21 bars, or un-switched, 21: 34 bars, as for 5 above.
7. ABA' (tripartite) pattern -Type I - *cf.* 3 above. The theoretical (masked) L: S GS point in the B section is indicated (bar line 376), but this lacks any significant corresponding musical or textual feature.
8. GS 'frame' enclosing movement VII, forming an ABA' (tripartite) pattern.
9. ABA' (tripartite) pattern -Type I -*cf.* 3 and 7 above. The theoretical (masked) L: S GS point in the B section is also shown (bar line 316).



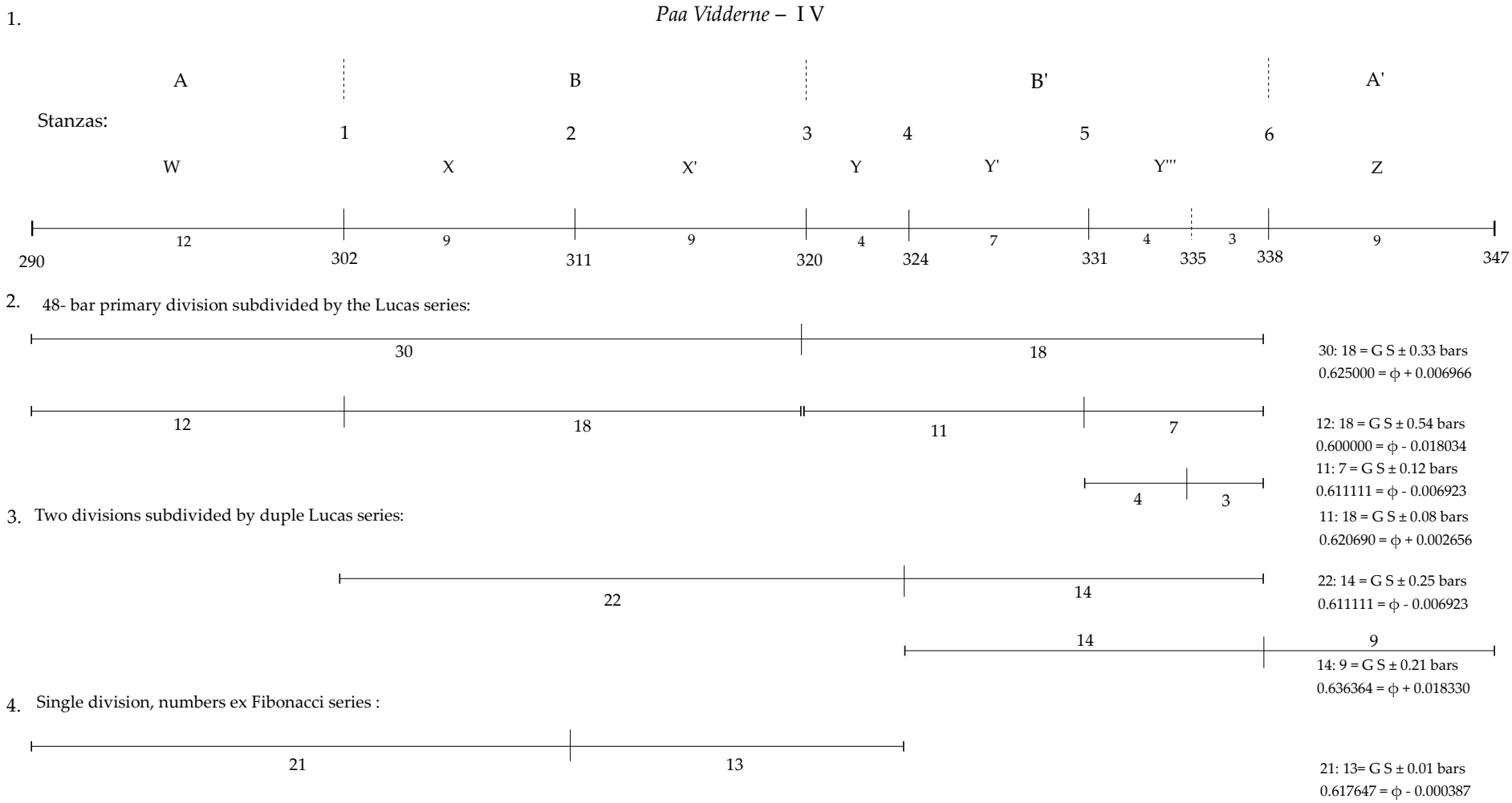


Figure 2.9.2 *Paa Vidderne* (1888) – movement IV showing:

1. Axis indicating the main sections according to placement of stanza incipits. X, Y, Z etc. denote passages based on different thematic materials.
2. Primary division showing (Type I) GS subdivision based on the Lucas series (48, 30, 18, 11, 7, 4, 3).
3. GS divisions and subdivisions based on the duple Lucas series 2 (18, 11, 7, 4, 3).
4. Single division subdivided according to the Fibonacci series (34, 21, 13, 8, etc).

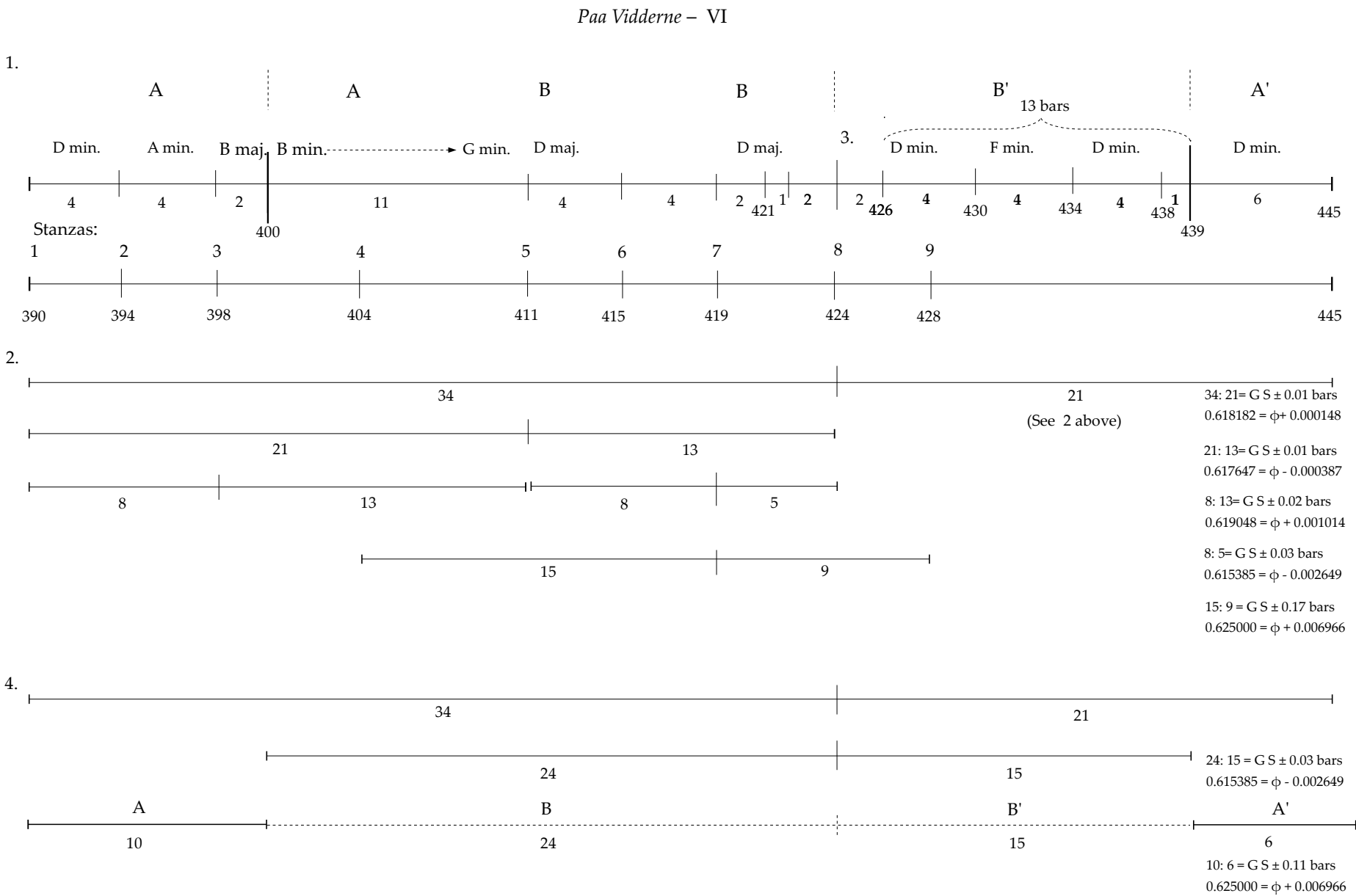


Figure 2.9.3 *Paa Vidderne* – movement VI showing:

1. Axes indicating the main sections according to placement of stanza incipits, key changes etc.
 2. Placement, using Type I GS proportioning and the Fibonacci series, of incipits to stanzas number 1, 3, 5, 7 and 8, and by trinal Fibonacci, 3(5: 3) = 15: 9 bars, of stanzas 4 and 9.
 3. Re-ordering and sub-division of Fibonacci numbers from bar 424 to the end of the movement (upper array).
 4. An early instance of ternary pattern formation *i.e.* the A and A' outer sections are musically similar, are in GS proportion, and contrast musically with the central B sections.
- When bar line 424, at the stanza 8 incipit, is taken as an inner GS point, the *proportional* designation of the pattern would be: A || B: B' || : A' – *i.e.* the complete GS pattern.

Paa Vidderne – Movement VIII

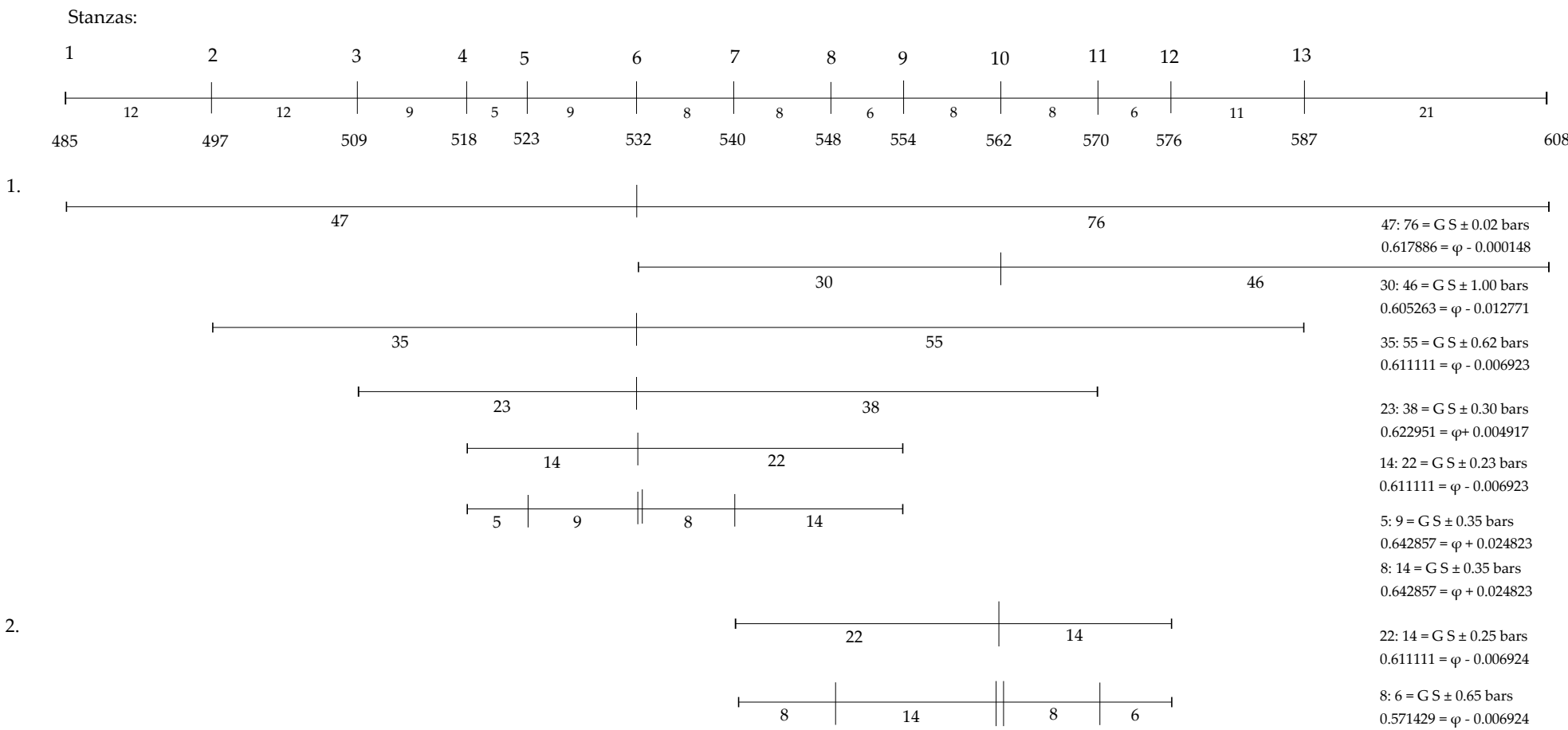


Figure 2.9.4 a *Paa Vidderne* (1888) – movement VIII showing:

1. Placement of text stanzas using predominantly Type II GS proportioning: incipits (for stanzas 1, 2 and 13, 3 and 11, 4 and 9) are placed at the end points of individual members of a four-member set arising from the S: L GS point of the movement (bar line 532 /stanza 6). Stanzas numbers 10, 5 and 7 are positioned at the GS points of individual limbs in the hierarchy.
2. An isolated division of 22: 14 bars, arising from the L: S GS point of the movement (bar line 562/stanza10) places incipits 8, 11 and 12 by subdivision of its two limbs respectively into 8: 14 and 8: 6 bar sections

Scale: 2mm: 1 bar

Paa Vidderne – Movement VIII

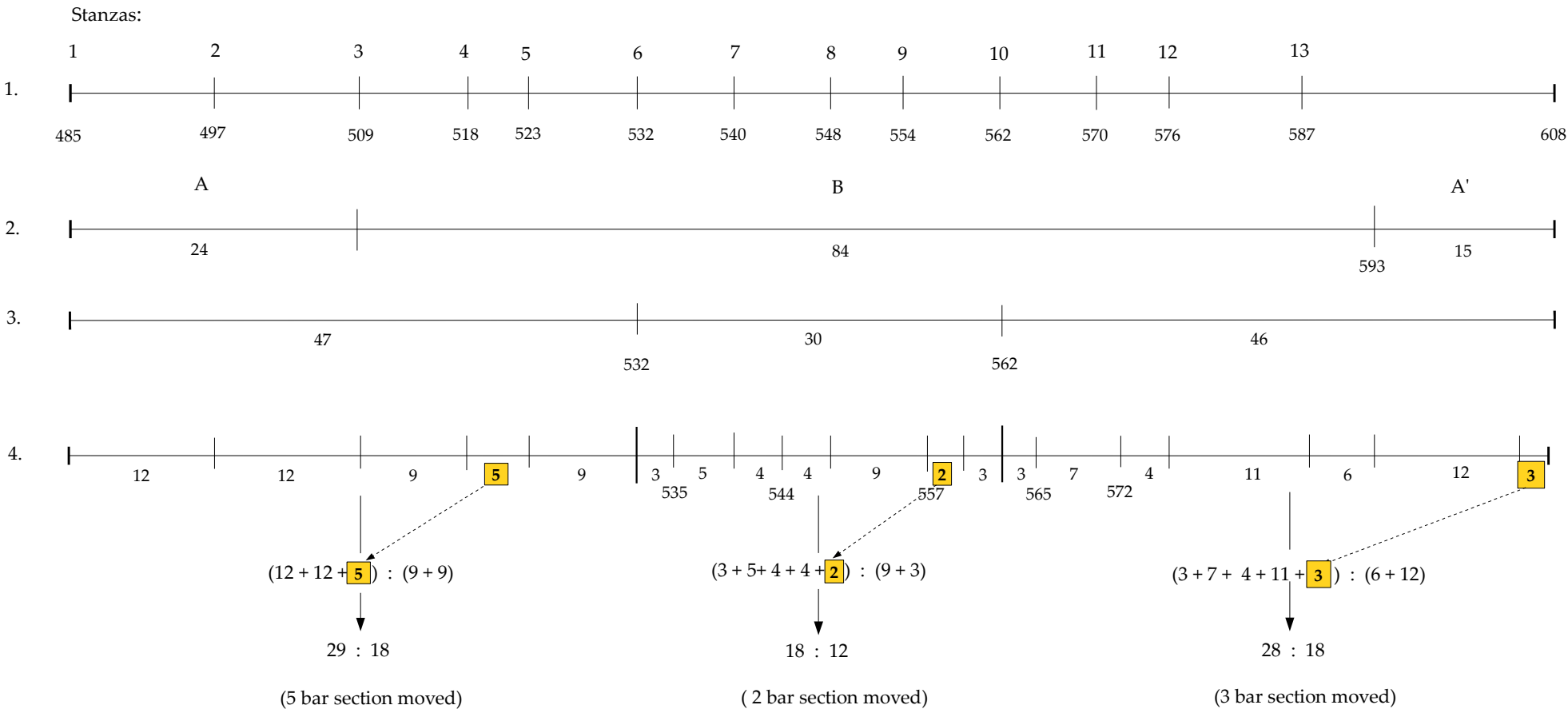
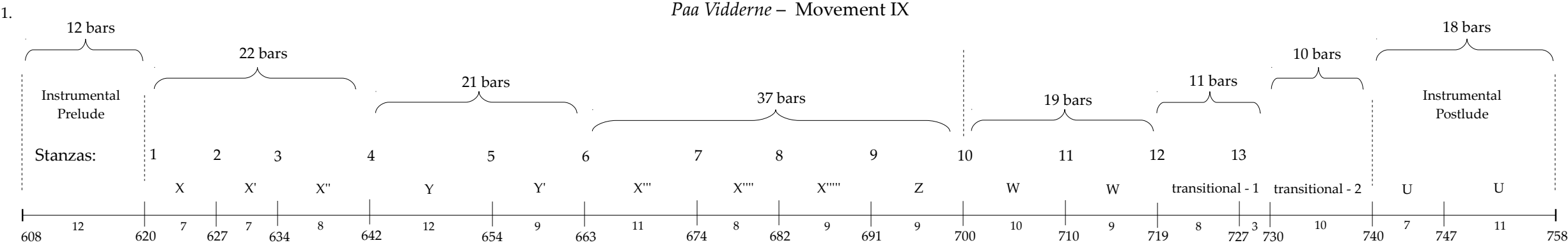


Figure 2.9.4 b *Paa Vidderne* – Movement VIII showing:

1. Positioning of text stanzas .
2. Formation of a tripartite ternary pattern A|B|: A' – 24|84|: 15 bars (the music of A' repeats that of A) - note that the two primary GS points of the B section are not observed.
3. Shows the two primary GS points of the entire movement - at bar lines 532 (*i.e.* S: L, 47: 76 bars) and 562 (*i.e.* L: S, 77: 46 bars). The total number of bars (123) and initial subdivisions are all in the Lucas number series : 123, 76, 47 (46) and 29 (30).
4. Further subdivision of the 47, 30 and 46 bar subdivisions gives further Lucas numbers: the dotted arrows and figures in bold face indicate re-ordering of products of this further subdivision. Note that evidence of a complete Lucas series occurs, *viz.* 123, 76, 47, 29 (30), 18, 11, 7, 4, 3, 2 (and 1) bars, and also that the positioning by GS of short musical sections (array 4) and stanza placement (array 1) may not coincide.



2. Primary GS division:



$$92: 58 = G S \pm 0.71 \text{ bars}$$

$$0.613333 = \phi - 0.00470172$$

3. Primary Pattern (mixed GS and 2: 1):

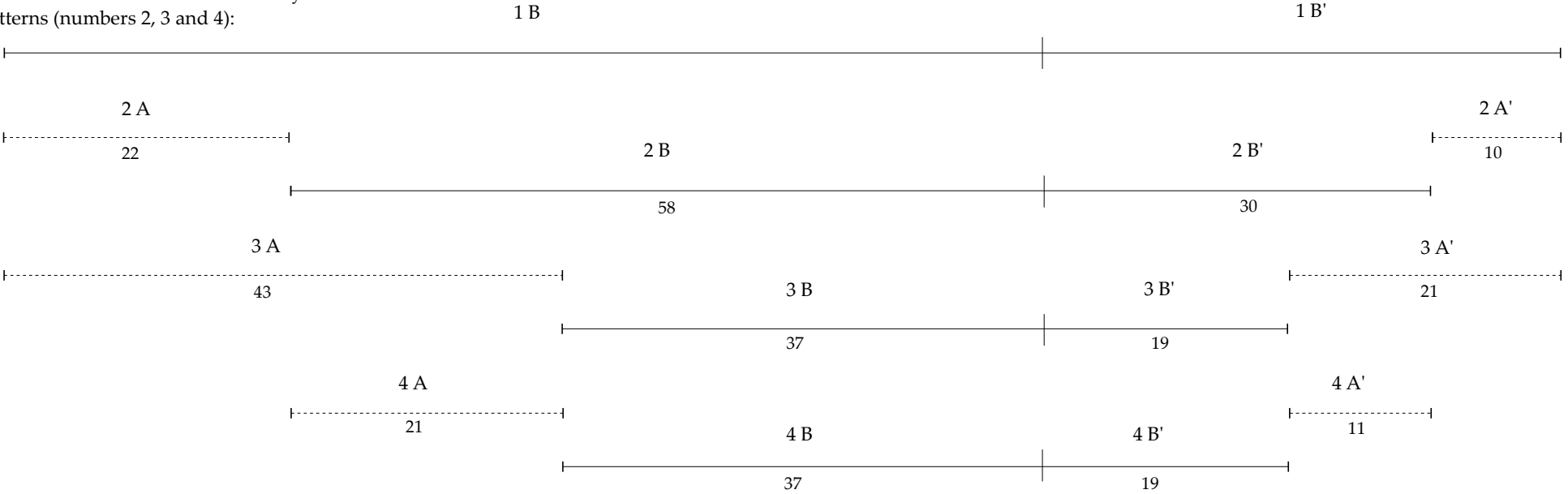


$$12: 18 = G S \pm 0.54 \text{ bars}$$

$$0.600000 = \phi - 0.018034$$

$$80: 40 = 2: 1 \pm 0.00 \text{ bars}$$

4. Subdivision of the 'B' section of the above primary pattern showing the formation of a 3- member 2:1 hierarchy and of three complete 2: 1 patterns (numbers 2, 3 and 4):



$$22: 10 = 2: 1 \pm 0.67 \text{ bars}$$

$$58: 30 = 2: 1 \pm 0.67 \text{ bars}$$

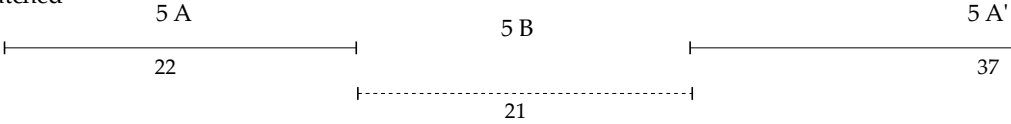
$$43: 21 = 2: 1 \pm 0.33 \text{ bars}$$

$$37: 19 = 2: 1 \pm 0.33 \text{ bars}$$

$$21: 11 = 2: 1 \pm 0.33 \text{ bars}$$

$$37: 19 = 2: 1 \pm 0.33 \text{ bars}$$

5. Formation of a tripartite GS pattern within section 1 B of the above primary pattern. The two outer sections are musically 'matched'



6. The B' section of the above primary pattern showing a 2: 1 division of the 40- bar sector.



$$22: 37 = G S \pm 0.54 \text{ bars}$$

$$0.627189 = \phi + 0.009085$$

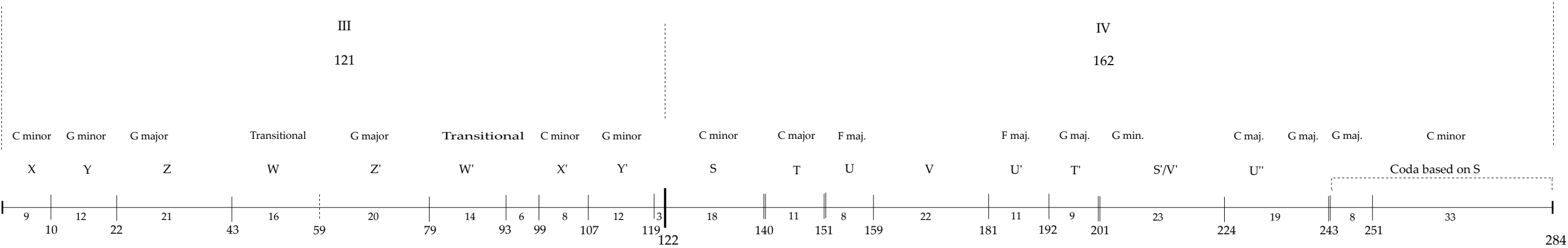
$$27: 13 = 2: 1 \pm 0.33 \text{ bars}$$

Figure 2.9.5 *Paa Vidderne* (1888) – movement IX showing:

1. Positioning of text stanzas : groupings of contrasting passages of music (signified by X, Y, Z etc) are indicated with horizontal braces..
2. Primary GS division (GS point at bar line 700).
3. Primary pattern 1A||1B: 1B':1A' – the two outer (instrumental) sections are in GS proportion, whilst the two inner are in 2:1.
4. The inner (= 1 B +1 B') section of the primary pattern contains additionally three 'complete 2: 1 patterns ' (patterns 2- 4) based on a hierarchy of three 2: 1 divisions.
5. The 1 B section above is further subdivided into a tripartite GS pattern (number 5) whose A sections are matched against a musically contrasting middle section .
6. The 1 B' section above further subdivides 2: 1 at the stanza 13 incipit – (bar line 727).

String Quartet (1888) – Movements III & IV.

1.



2.



3.

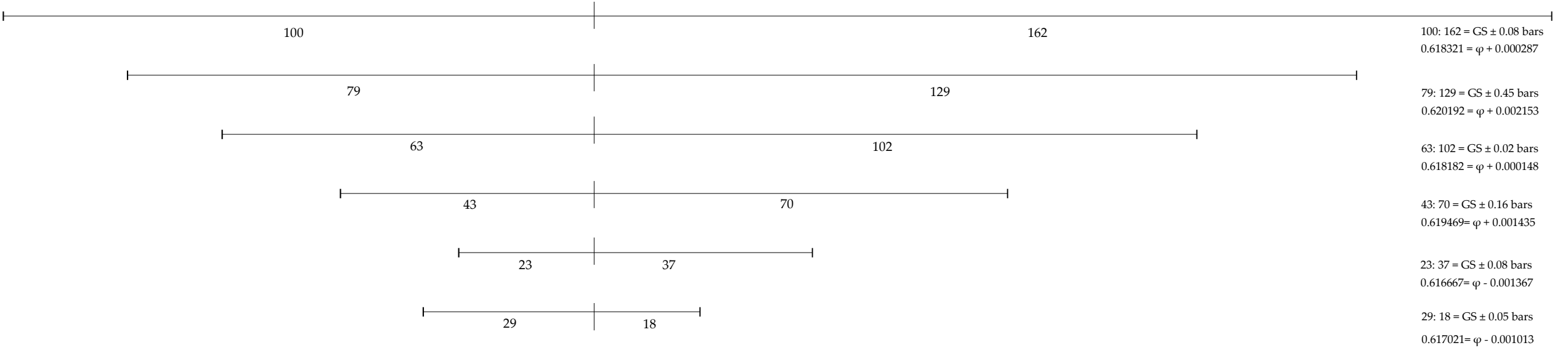


Figure 2.10 The 1: 1 / GS Hierarchy: *String Quartet* (1888), Movements III and IV * showing:

1. Axis in bars indicating sections of similar/differing musical content (X, Y, Z & S, T, U etc.), main keys *etc.*
2. Overall primary 1: 1 division between the two movements, (121 + 121 bars).
3. Construction of a six-member GS type II set, arising at bar line 122. Members of the set also act as linking GS divisions between the two movements.

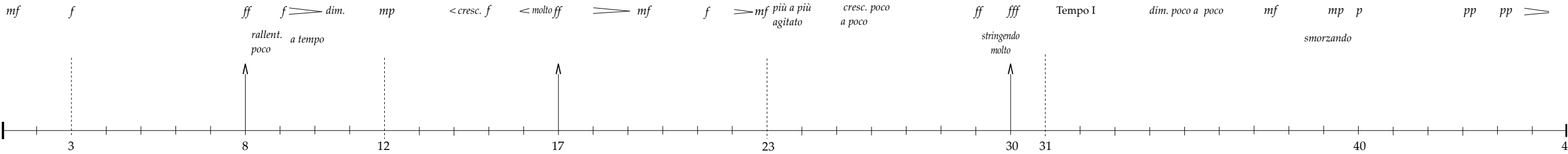
* Movements I and II are defective.

O schneller mein Roß
(Plus vite, mon cheval)

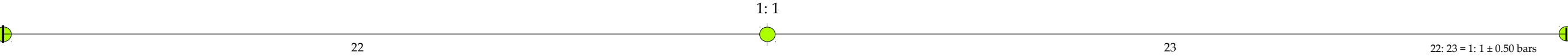
1. Overall partitioning by GS with redistribution:



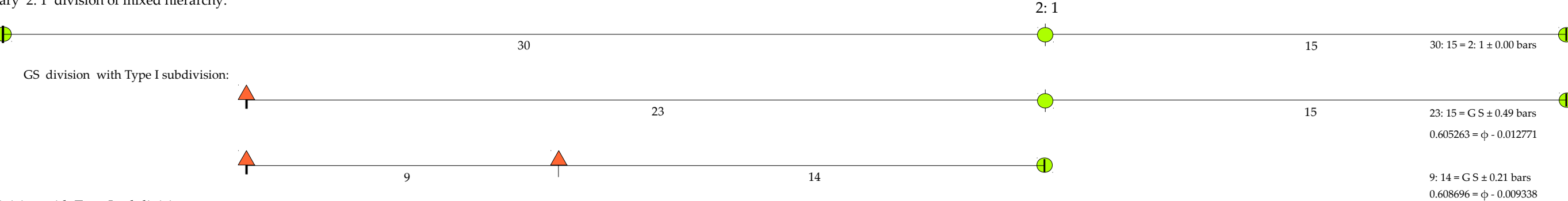
2. Axis indicating dynamics and tempo markings:



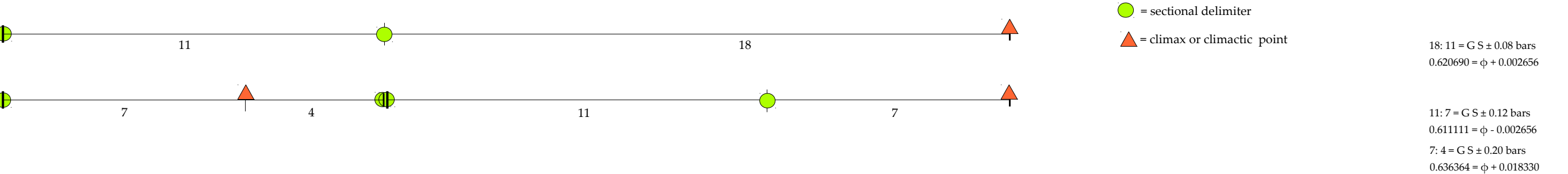
3. Primary 1: 1 division (bisection):



4. Primary 2: 1 division of mixed hierarchy:



5. GS division with Type I subdivision:



● = sectional delimiter

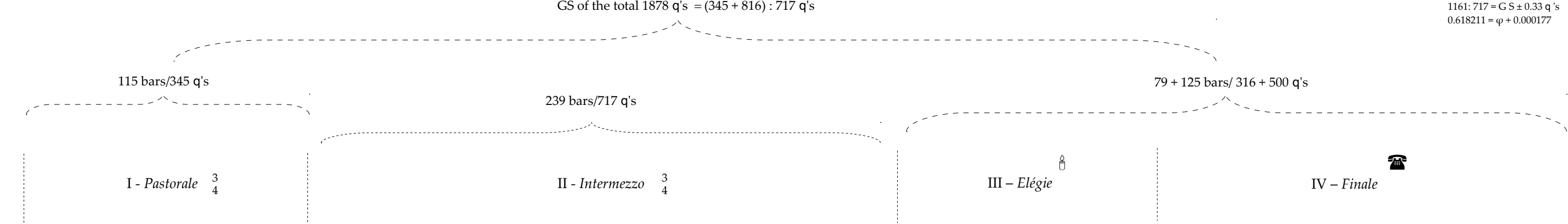
▲ = climax or climactic point

Figure 2.11 *O schneller mein Roß – (Plus vite, mon Cheval)* – setting for voice and piano, (words by Emanuel Geibel) - 1888 :

1. The overall subdivision of the setting results from partitioning by GS of the piano postlude and introduction (15 + 2 bars) and the sung text (28 bars). The 28- bar vocal section is then further subdivided by GS.
2. Axis in bars indicating the main sections, climaxes or climactic points and tempo markings.
3. Primary overall 1: 1 division (bisection) at the juncture of stanzas 2 and 3 of the text.
4. Primary overall 2: 1 division, with GS division forming a 2-member, mixed hierarchy. The common point is at bar line 31 at the start of the piano postlude, following the main climax (bar 30). The hierarchy with its Type I subdivision places the first and second climactic points in GS relationship with each other, and with the start of the piano 'descent'.
5. GS division, with GS point is at the juncture of stanzas 1 and 2. The Type I subdivisions follow the Lucas series, and focus the first climactic point in a 7: 4 bar ascent/descent proportion.

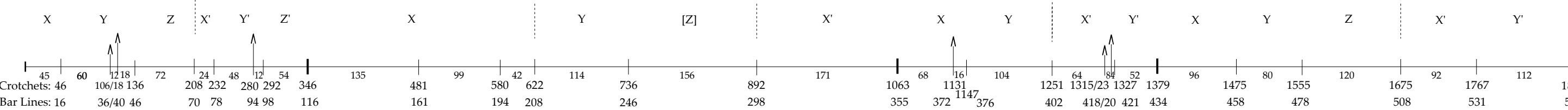
Suite for Violin & Orchestra (c.1888)

1. Overall partitioning by GS with redistribution of GS components:**



2 a. Switched CGSP (movements III & IV combined):

3. Array of main musical features :



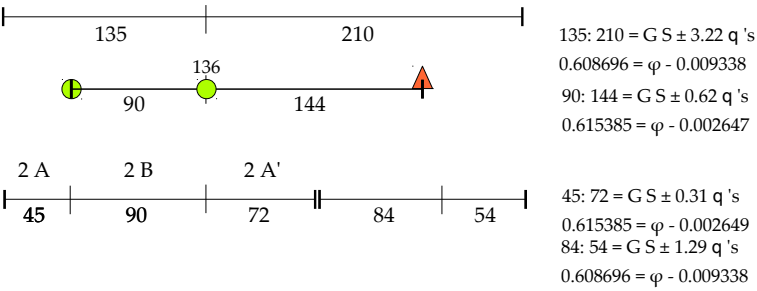
4 a. Primary 1: 2 division (hierarchy of 2- member set):**



4 b. Single GS member of set showing type I subdivision:



5. Proportioning within movements I, III & IV:



● = sectional delimiter

▲ = climax or climactic point

2 b. Switched CGSP : Reversal of sections A' and B' establish a CGSP in S: L format:

188: 296 = G S ± 3.13 q's
0.611570 = φ - 0.006464

128: 204 = G S ± 1.19 q's
0.614458 = φ - 0.003576

(188 + 128): (204 + 296)
= 316: 500 = G S ± 4.32 q's
0. 612745 = φ - 0.005289

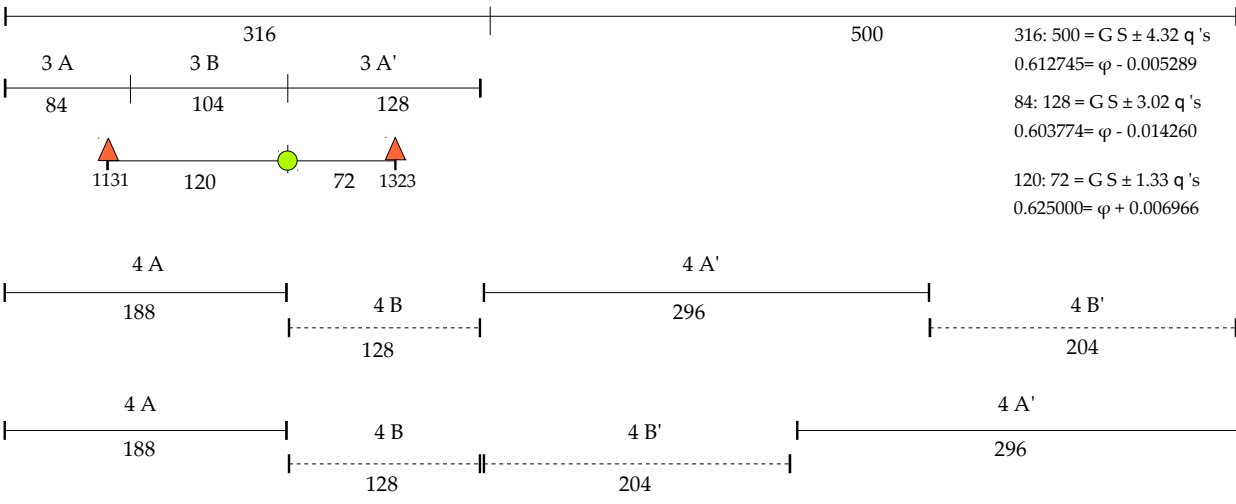


Figure 2.12.1 *Suite for Violin & Orchestra* (c. 1888). N.B. Proportioning is shown in *crotchet reduction* throughout. Proportions which occur only in *crotchet reduction* (and not also bars) are indicated by a double asterisk (**).

- The overall subdivision of the *Suite* originates from partitioning by GS of movements I, III and IV (total 1161) and II (717crotchet 'beats')**. Movements III and IV are also in GS proportion with each other.
- a. Shows complementary GS proportions between movements III and IV. b. Reversing 4 A' and 4 B' (or 4 A and 4 B) will produce an (unswitched) complete GS pattern.
- Axis array of main musical features. X, Y, Z etc. refer to contrasting sections based on different thematic materials.
- a. Primary overall 1: 2 division**, with an accompanying GS division (4 b.) forming a 2-member, mixed hierarchy. The common point lies after 621 crotchets (bar line 208) at the start of the middle section of movement II.
- Proportioning within movements I and III - IV. Linking by GS of individual climactic points with sectional delimiters is also indicated.

Suite for Violin & Orchestra – Movement I: *Pastorale*

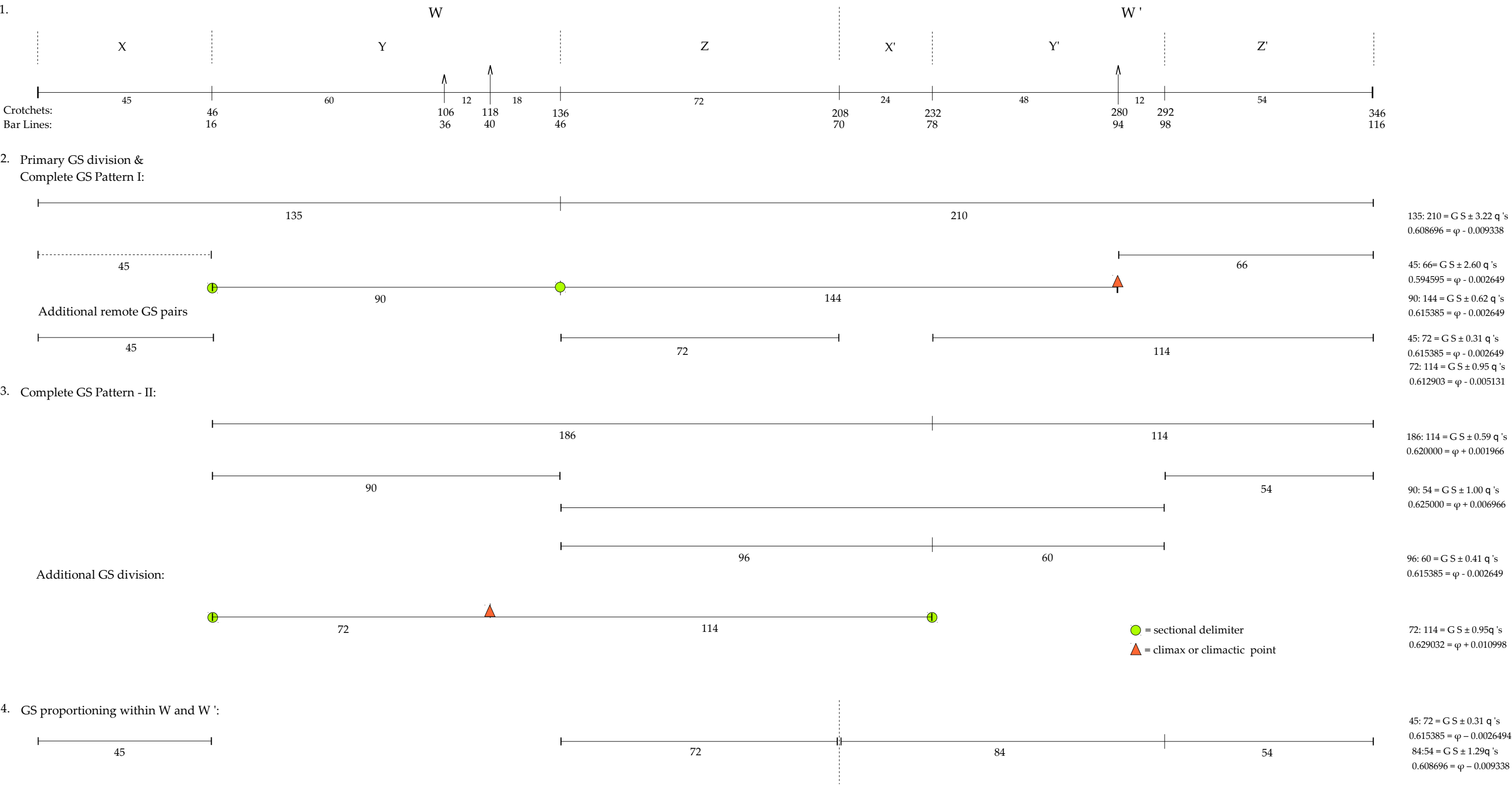
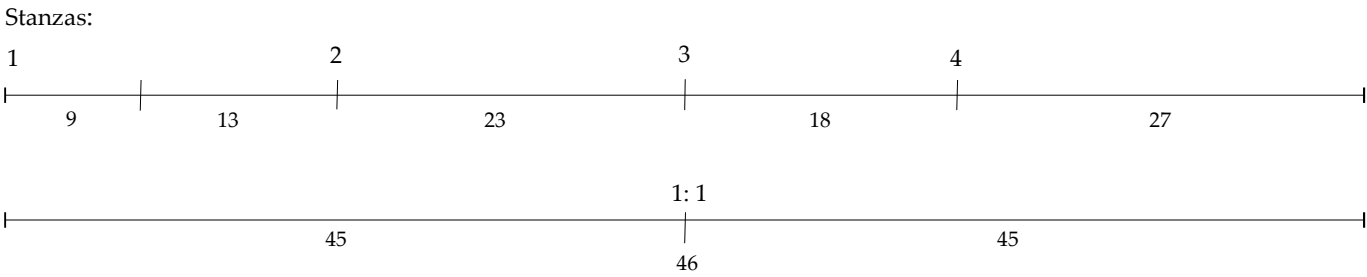


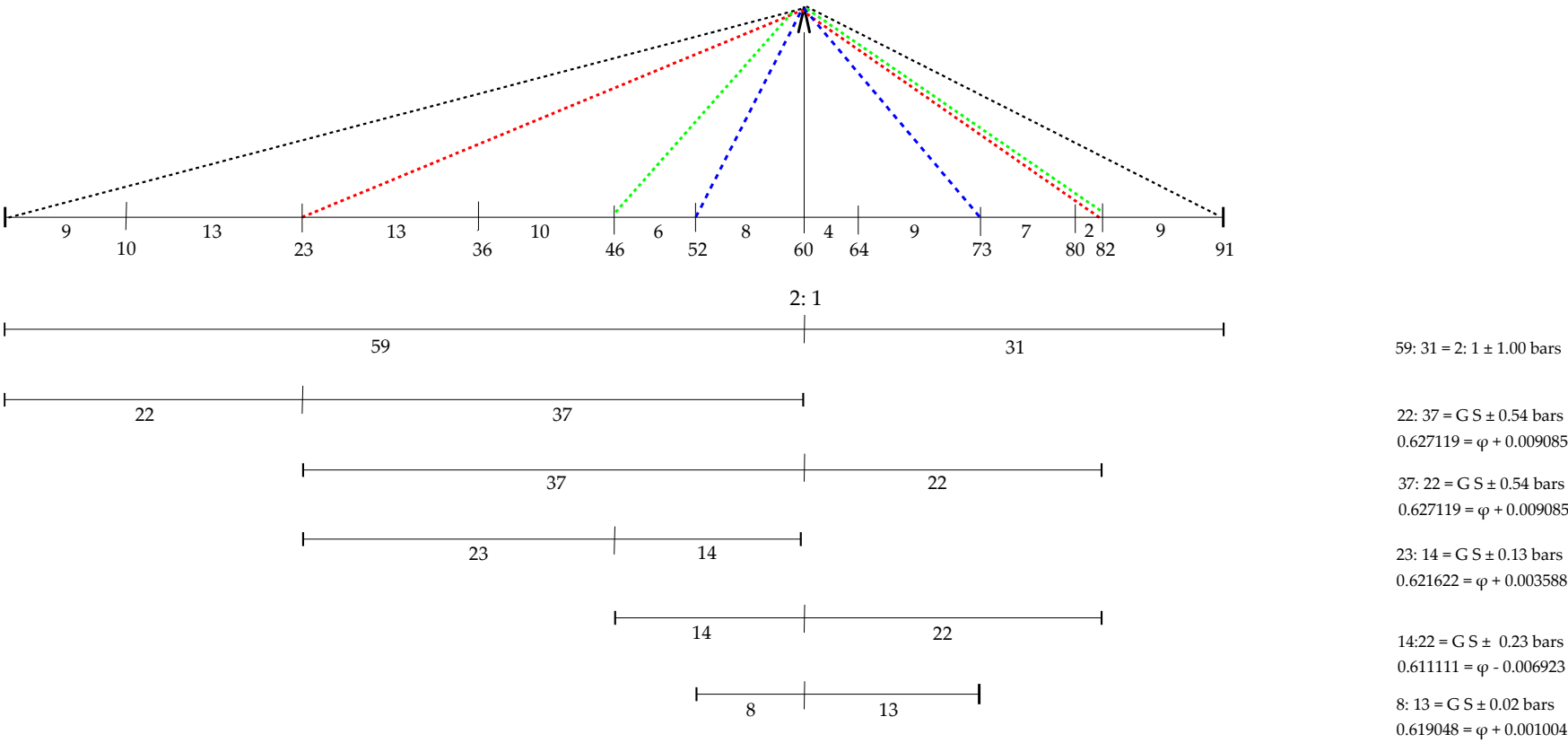
Figure 2.12.2 *Suite for Violin & Orchestra* (c. 1888) – Movement I. *N.B.* proportioning is shown in *crotchet reduction* throughout.

1. Axis array of main musical features. W and W' indicate the main binary division, (where W ' = a modified repeat of W). X, Y, Z etc. refer to contrasting sections based on different thematic materials.
2. Shows the primary GS division of the movement (*i.e.* after crotchet 135/bar line 46) and the formation of Complete GS Pattern I. Two remote pairings occurring within the confines of the pattern are also shown (2 a).
3. Formation of Complete GS Pattern II with the GS point at the juncture of X' and Y' in the repeat section (after 231 crotchets/bar line 78). The S: L GS point of sections A and B marks the climax after crotchet 117/bar line 40.
4. Further subdivision by GS within sections W and W'.

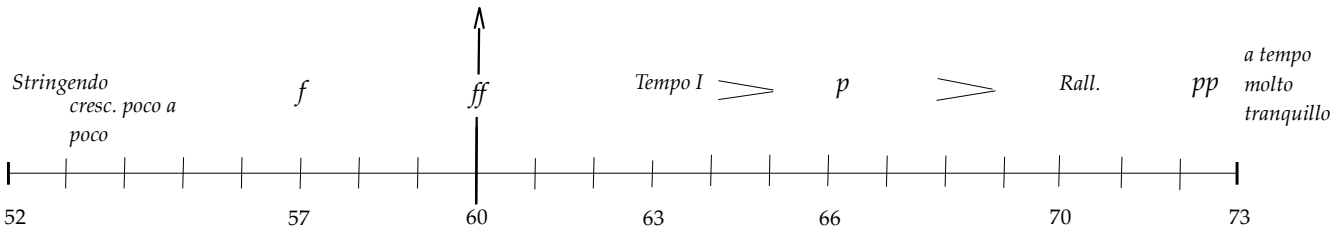
1.



2.



2 a.



3.

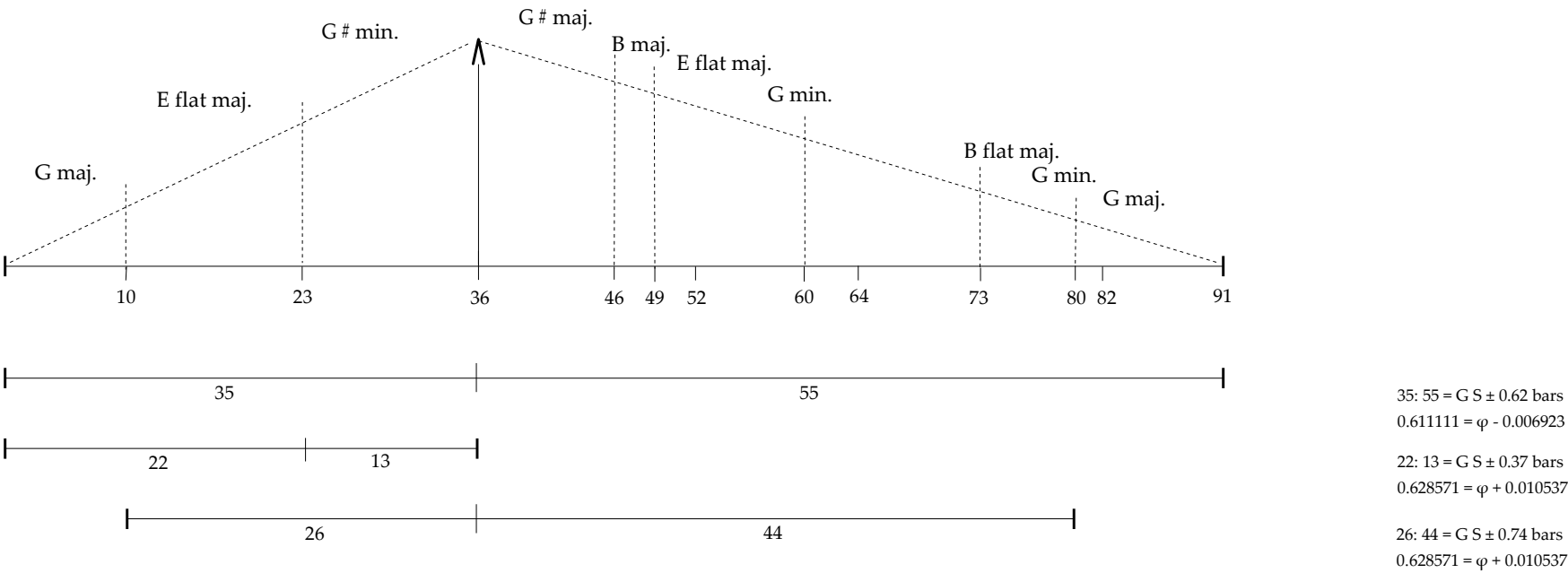


Figure 2.13 *Sakuntala* (1889) showing:

1. Placement of the four stanza-incipits of Drachmann's poem. The movement is bisected at the beginning of stanza three (bar line 46), which is also marked by the introduction of a new theme (initially on the flutes, in B major).
2. Dynamic climax of the work, illustrating the proportioning of successive 'ascent' and 'descent' phases – i.e. 2: 1, (59: 31 bars, shown in black dotted lines), 37: 22 (GS, L: S, red), 14: 22 (GS, S: L, light green), and 8: 13, (GS S: L, blue).
- 2a. The 8: 13- bar climax, indicating changes in tempo and dynamic markings over the approach to, and return from, the climax.
3. Progression of tonalities preceding and subsequent to the S: L GS point at bar line 36.

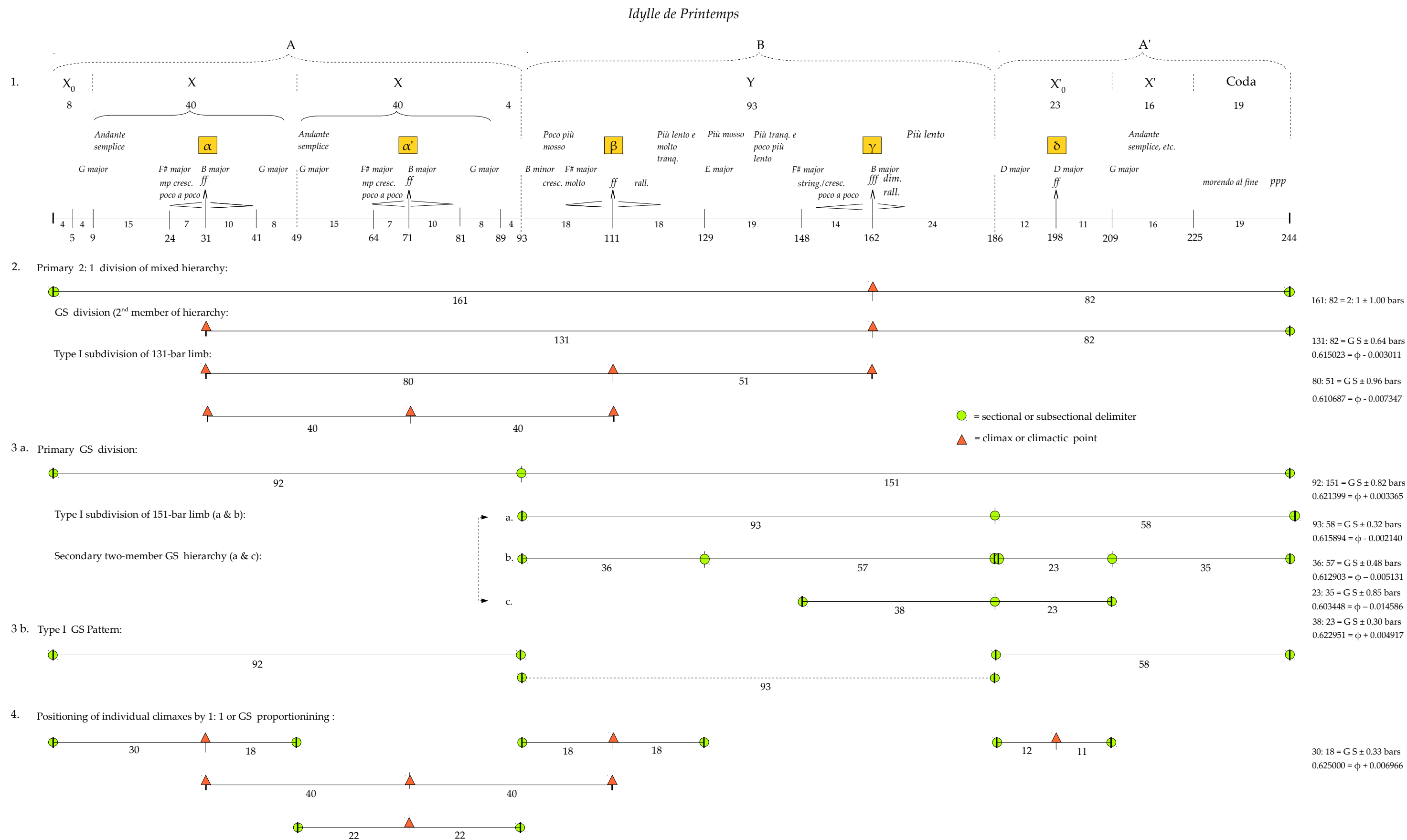


Figure 2.14 *Idylle de Printemps* – *Morceau Symphonique* (1889) :

- Axis in bars indicating the main sections, climaxes and tempo markings. A, B and A' indicate component sections of the Type I GS Pattern, and X, Y and X' sections of differing /similar musical content.
- Primary overall 1: 2 division, with the GS division forming a 2-member, mixed hierarchy. The common point is at the γ -climax. The hierarchy with its Type I subdivisions places the α , β and γ -climaxes in GS relationship with each other, whilst the α' climax is equidistant from both the α and the β climaxes.
- 3a. Primary overall GS division, with the main GS point at the juncture of A and B.
- 3b. Primary overall ABA' pattern arising from the above overall primary GS division
- Shows the local 'ascent' and 'descent' phases of four of the five climaxes. The proportions *ascent:descent* are either in a 1: 1 or a GS relation.

Trois Morceaux Caractéristiques

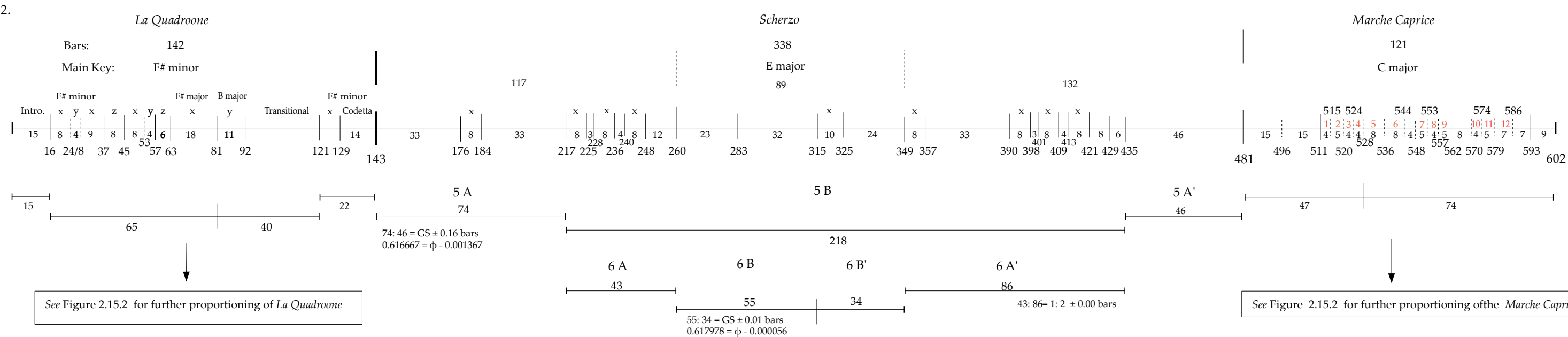
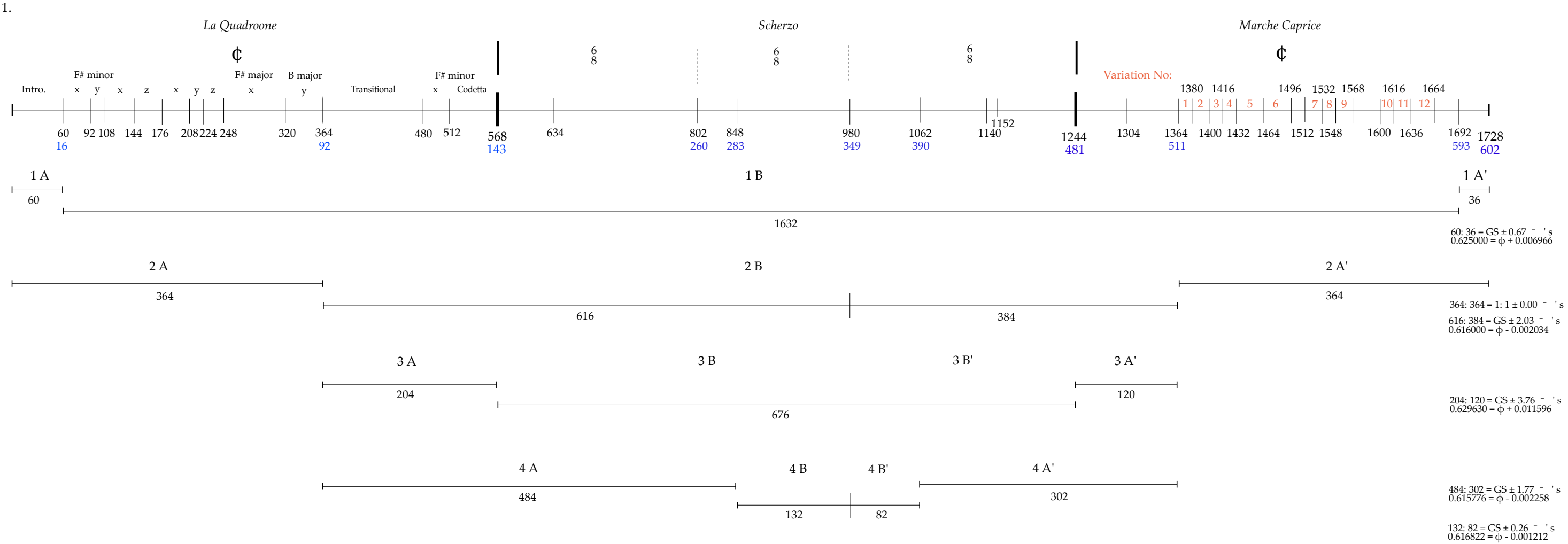


Figure 2.15.1 *Suite de Trois Morceaux Caractéristiques pour Orchestre* (1889 – 1890):

1. Upper axis (units in crotchet beats): the opening and closing bars of the *Suite* are in GS proportion (pattern 1). A further three patterns are constructed (nos 2, 3 and 4), nos 3 and 4 are contained within the 'B' section of pattern 2. The uppermost of these (pattern 2) is a 1: 1 design with the 'B' section subdivided by GS. The remaining two patterns (nos. 3 & 4) are complete GS patterns.

2. Lower axis (units in bars): A further GS (tripartite) pattern is formed within the *Scherzo* (pattern 5), whose B section is converted to pattern 6 (*cf.* The procedure above). The GS point at bar line 315 is the GS point of the *Scherzo* central section.

Trois Morceaux Caractéristiques – cont.
La Quadroone - Une Rhapsodie Floridienne

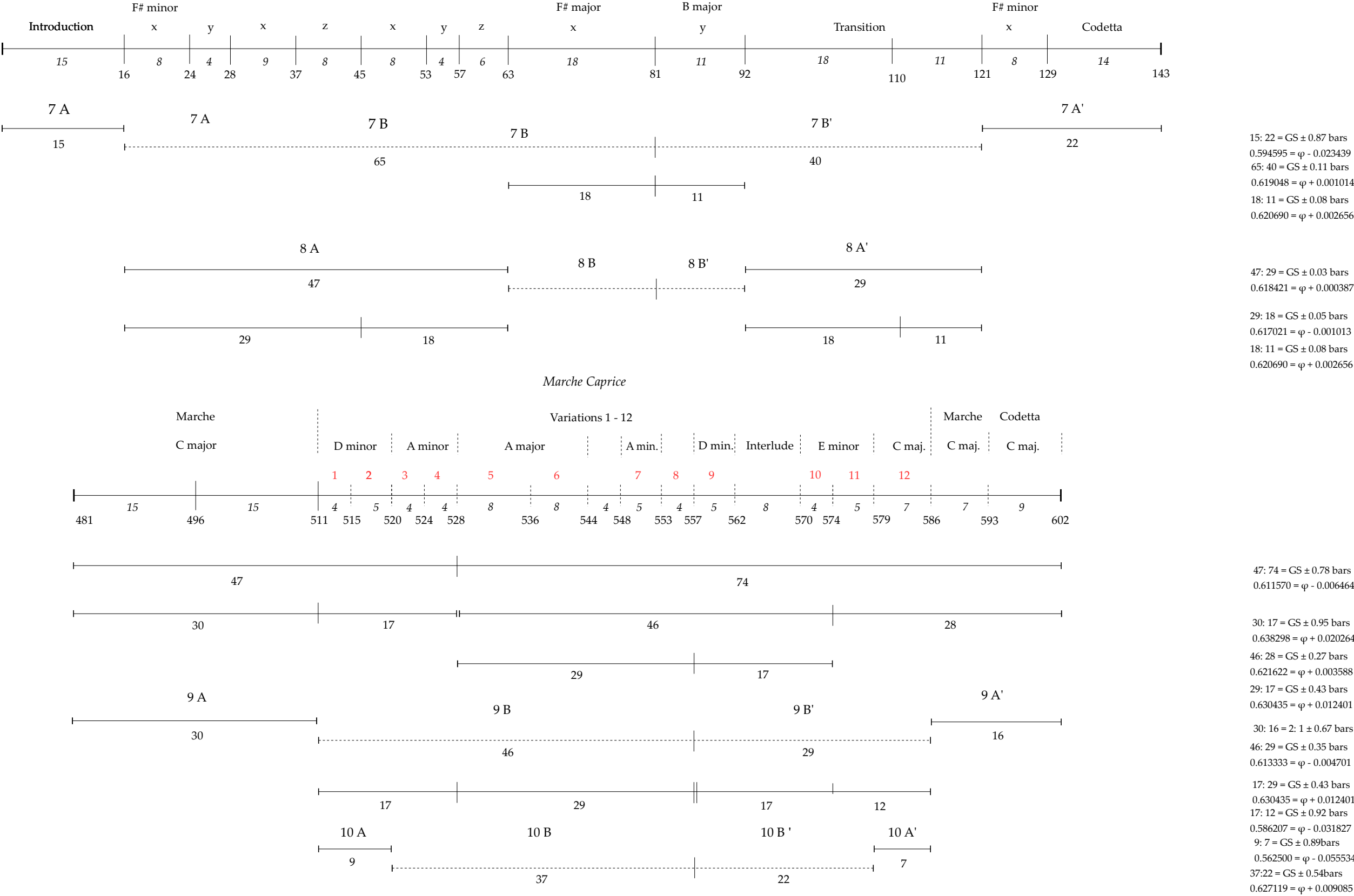
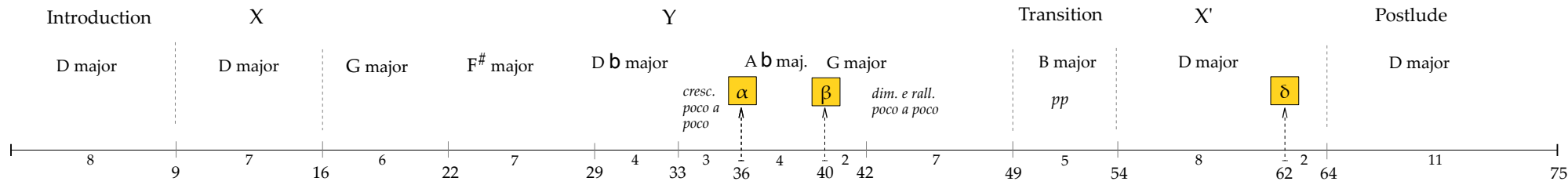


Figure 2.15.2 Suite de Trois Morceaux Caractéristiques pour Orchestre (1889 – 1890), Movements I and III:

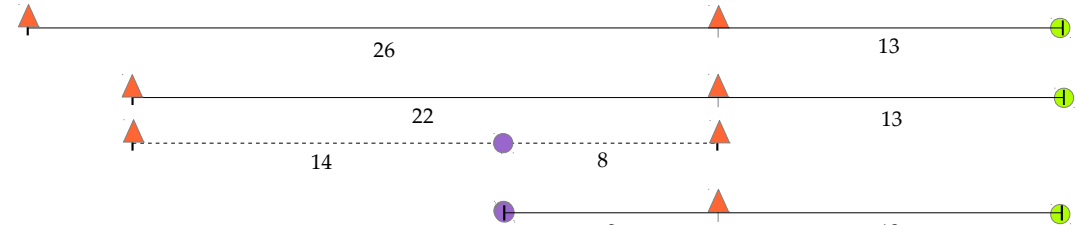
1. Upper axis: *La Quadroone* (units in bars): showing the construction of a quadripartite GS pattern with a switched B section (pattern 7). The B section of pattern 7 is converted through a Type II construction into an 'inner' complete GS pattern (pattern 8), based on the Lucas series.
2. Lower axis: *Marche Caprice* (units in bars): The primary GS point occurs at bar line 528 between variations 4 and 5. The two limbs of this division are then regularly subdivided by Type I proportioning. An additional construction, pattern 9, overlies these divisions, whose outer sections (9 A and 9 A') comprise the *Marche* proper, and enclosing the inner 12 variations (sections 9 B and 9 B'). As found elsewhere in the *Suite*, a complete GS pattern (here pattern 10) is formed within the B section of a pattern higher in the hierarchy (here pattern 9). Note the use of Lucas series approximations as in *La Quadroone* above.

Summer Evening (1890)

1. Axis in Bars:



2. Two-member mixed set whose shared point is climax δ . The set also links climaxes α and β with δ :



26: 13 = 2: 1 \pm 0.00 bars
 26/39 = 0.666667
 22: 13 = GS \pm 0.37 bars
 0.628571 = ϕ + 0.010537
 14: 8 = GS \pm 0.40 bars
 0.636364 = ϕ a 0.018330
 8: 13 = GS \pm 0.02 bars
 0.619048 = ϕ + 0.001014
 20: 13 = GS \pm 0.40 bars
 0.606061 = ϕ - 0.011973
 39: 24a = GS \pm 0.06 bars
 0.619048 = ϕ + 0.001014
 15: 24 = GS \pm 0.10 bars
 0.615385 = ϕ - 0.002649
 9: 15 = GS \pm 0.17 bars
 0.625000 = ϕ + 0.006966

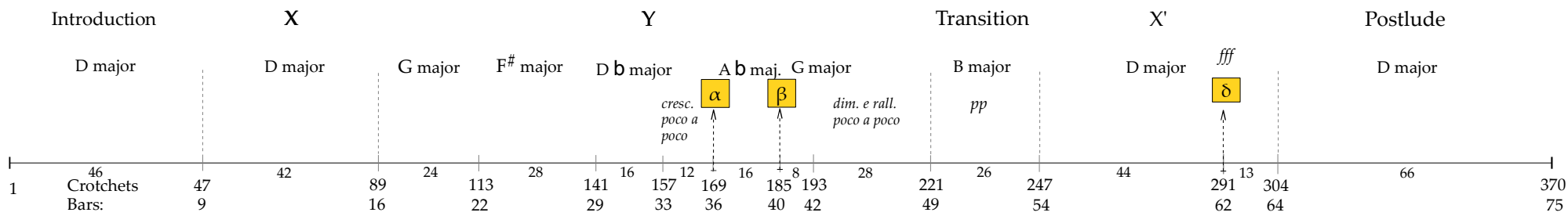
3. GS ascent-descent construction for climax α . Also showing key ascent and graded dynamics:



4. GS ascent-descent construction for climax β . Also showing Type I subdivision in limbs:



5. Axis in Crotchets:

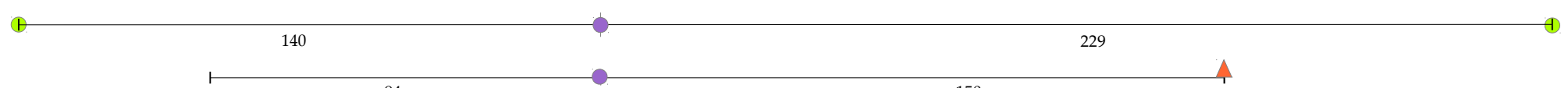


6. Primary 1: 1 division at β climax:



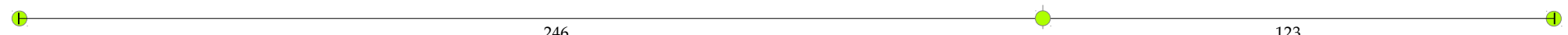
184: 185 = 1: 1 \pm 0.5 q's

7. Primary GS division - (GS point at F# major/Db major shift):



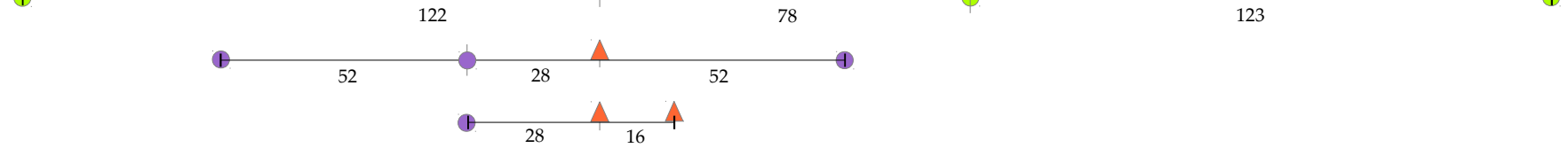
140: 229 = GS \pm 0.95 q's
 0.620596 = ϕ + 0.002562
 94: 150 = GS \pm 0.80 q's
 0.614754 = ϕ - 0.003280

8. Primary 2: 1 division (at start of recapitulation X'):



246: 143 = 2: 1 \pm 0.00 q's

9. Secondary three-member GS hierarchy:



122: 201 = GS \pm 1.38 q's
 0.622291 = ϕ + 0.004257
 200: 123 = GS \pm 0.38 q's
 0.619195 = ϕ + 0.001161
 80: 52 = GS \pm 1.60 q's
 0.606060 = ϕ - 0.011973
 28: 16 = GS \pm 0.81 q's
 0.636363 = ϕ + 0.018330

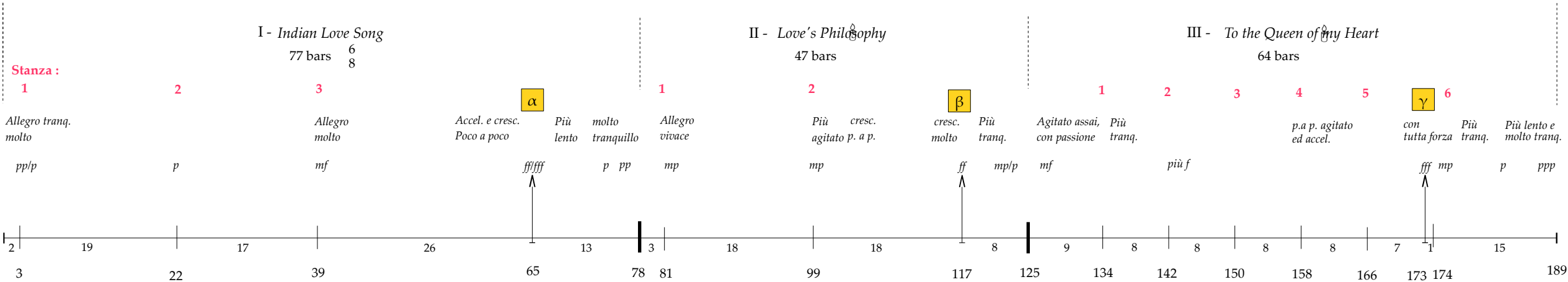
marks where a musical climax (*ff*, *fff* etc.) coincides with an end, GS or 2: 1 point of a division. marks where the start/end of a musical section (X, Y etc.) = an end, GS point etc., and where there is an accompanying shift or change in tonality between sections. marks where the end/beginning of a musical section (W, X, Y etc.) corresponds to an end point, GS or 2: 1 point of a division.

Figure 2.16 *Three Small Tone Poems – Summer Evening* (1890): Two interacting proportioning strategies are operating respectively at bar- and at crotchet reduction levels:

1. Axis in *bars* indicating the movement's sections, climaxes and tempo markings.
2. Two-member mixed set with shared common point at climax δ .
3. Single GS division with GS point at climax α .
4. Single GS division with GS point at climax β , and with the two limbs of the subdivision showing Type II subdivision.
5. As for 1. above, but with axis *measured in crotchets*.
6. and 7. Overall Primary 1: 1 and Primary GS divisions.
8. Overall primary 2:1 division acting as uppermost member of a two-member mixed hierarchy.
9. Secondary three-member hierarchy with the shared point at climax α .

Three Songs to Words by Shelley

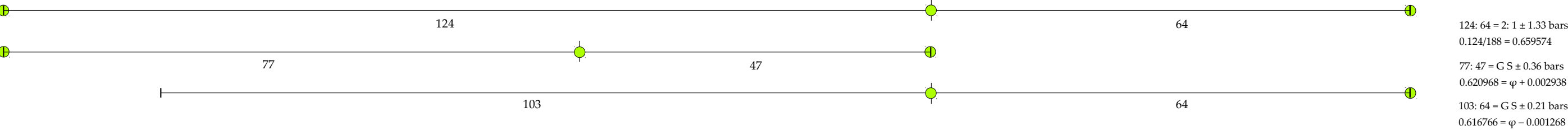
1.



2. Primary GS division:



3. Primary 2: 1 division & 2- member mixed hierarchy:



4.

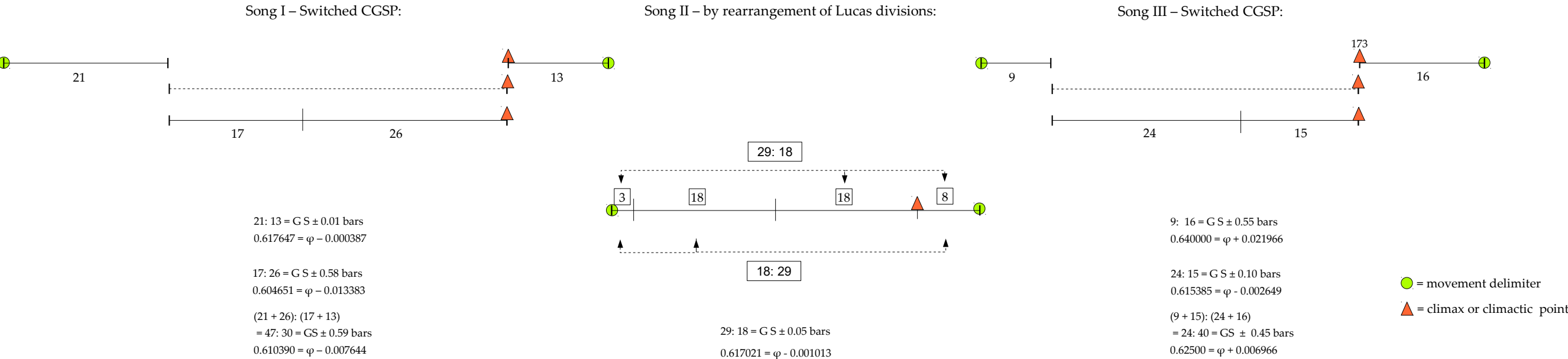
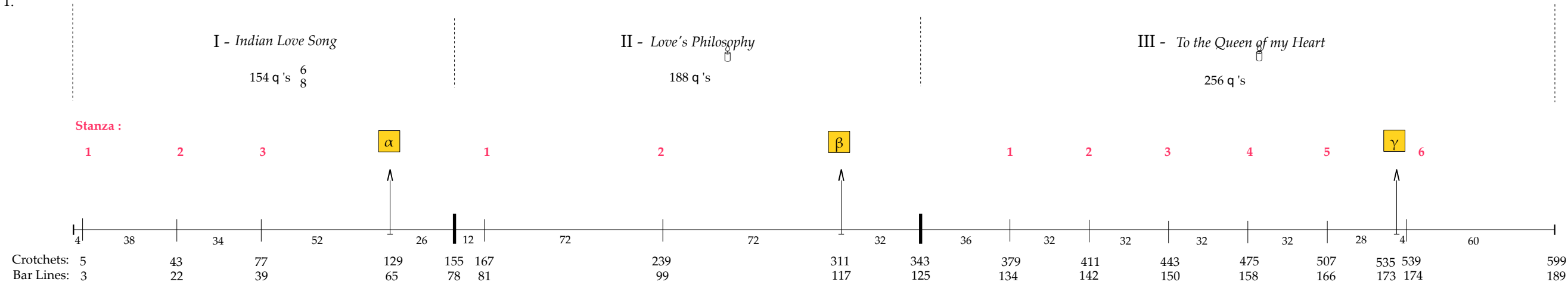


Figure 2.17.1 Three Songs to Words by Shelley – (Paris, 1891):

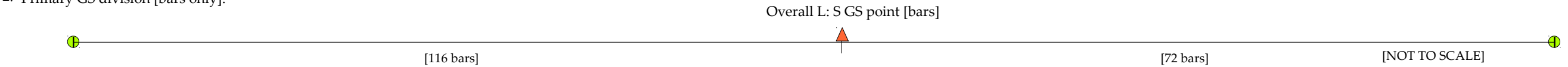
1. Axis in bars indicating individual songs, sections and sub-sections, climaxes and tempo markings.
2. Primary GS division, with L: S GS point at the climax of Song II (β -climax).
3. Primary 2: 1 division and two-member mixed hierarchy, with shared common point at the juncture of Songs II and III.
4. Partitioning within each song: Songs I and III both follow a switched CGSP; Song II is proportioned by subdividing the 47 total bars into further Lucas numbers.

Three Songs to Words by Shelley

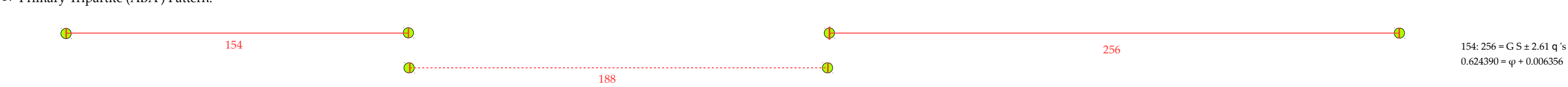
1.



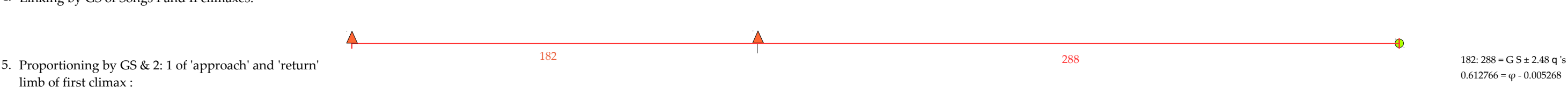
2. Primary GS division [bars only]:



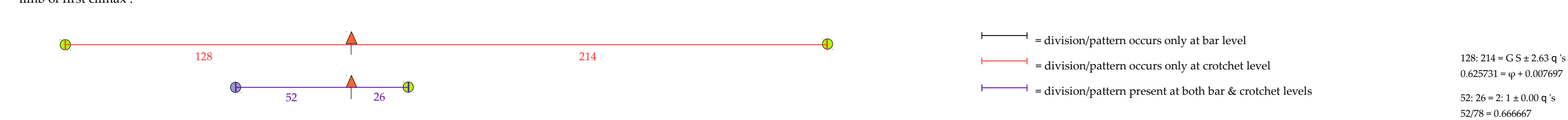
3. Primary Tripartite (ABA') Pattern:



4. Linking by GS of Songs I and II climaxes:



5. Proportioning by GS & 2: 1 of 'approach' and 'return' limb of first climax :



6. Alignment of within-song climaxes and overall proportioning:

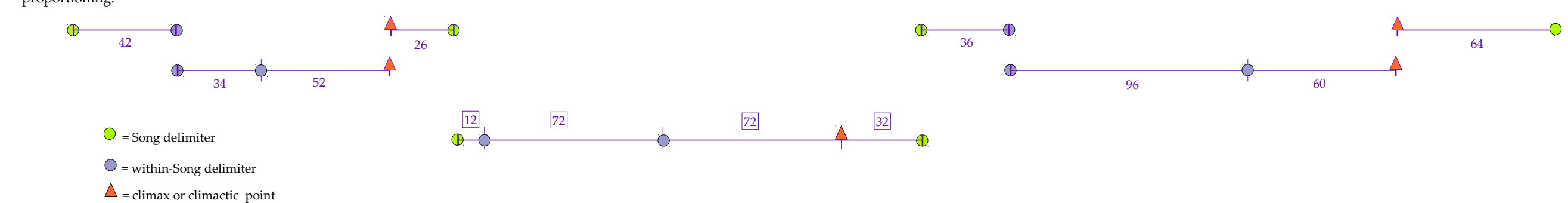


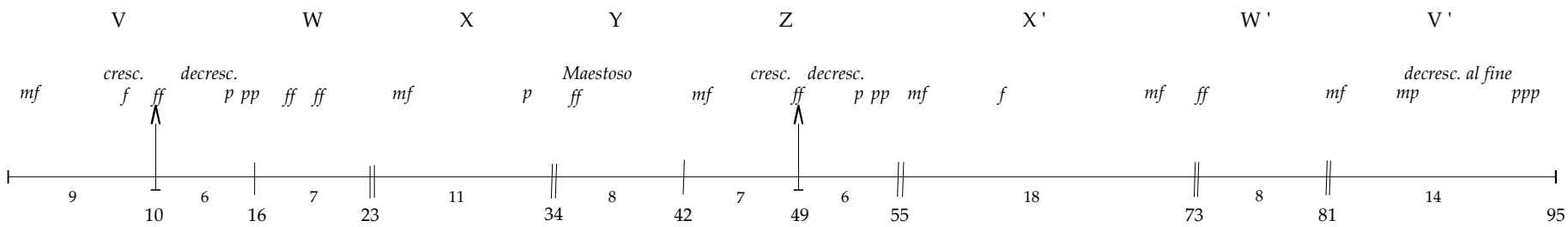
Figure 2.17.2 *Three Songs to Words by Shelley* – (Paris, 1891): Two interacting proportioning strategies operating respectively at bar- and at crotchet reduction levels:

1. Axis in *crotchet reduction* indicating individual songs, and song sub-sections, climaxes and tempo markings.
2. Primary GS division, with L: S GS point at the climax of Song II (β- climax). (Only to scale when axis is in bars - see Fig: 16.1)
3. Overall Primary tripartite (ABA') pattern: occurs only in *crotchet reduction* (i.e. when the 6/8 time signature is reduced to 2 crotchet beats per bar).
4. Linking of climaxes of Songs I & II (α and β climaxes) by a GS division: occurs only in *crotchet reduction*. 5. Proportioning of 'ascent' and 'descent' phases of Song I (α) climax.
6. Partitioning within each song: there are no time signature changes within each song. Proportioning, therefore, is the same at bar or at crotchet reduction levels.

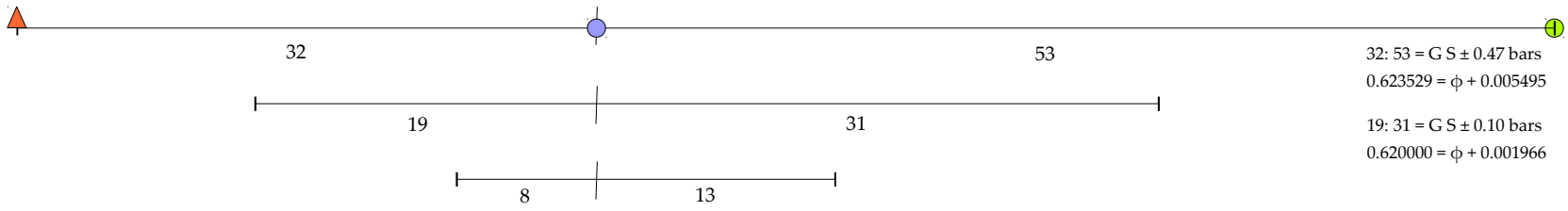
Pensée Mélodieuse No 2

Allegro moderato - ♩

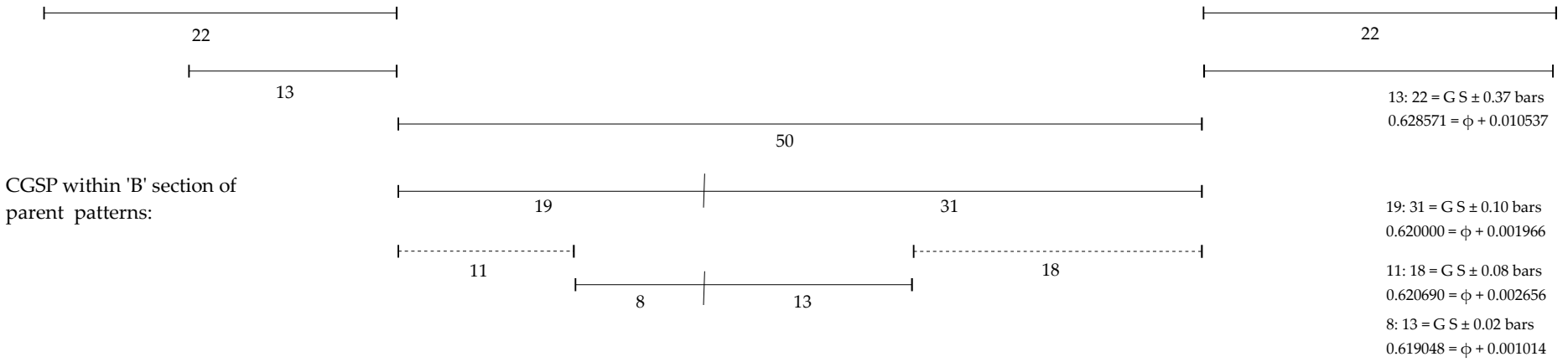
1.



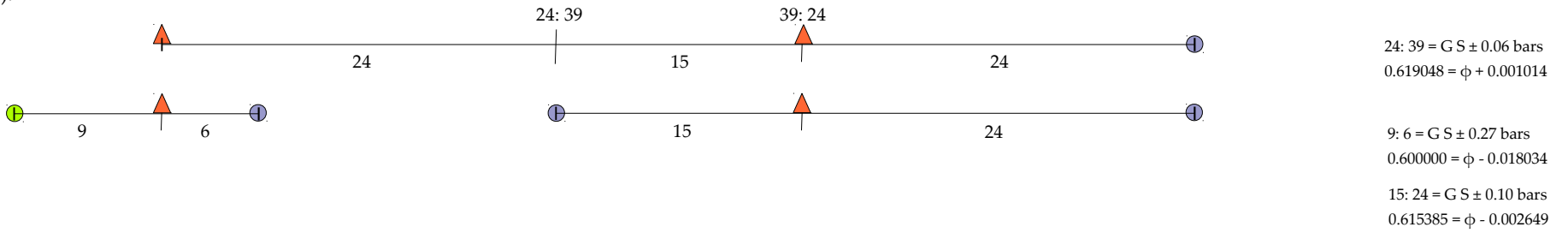
2. Three-member
GS hierarchy:



3. Primary 1: 1 and
primary CGSP pattern:



4. Additional positioning of climaxes at
GS point and end point (of Type I
division):



5 Additional remote GS pairs:



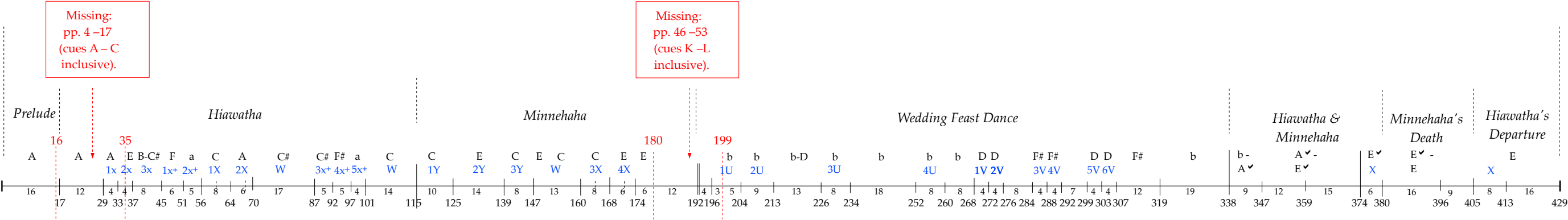
- = movement delimiter
- = within-movement delimiter
- ▲ = climax or climactic point

Figure 3.1 *Pensées Mélodieuses No. 2* – (Date on manuscript: June 10/85. The existing manuscript presumably represents a backdated Paris revision of an earlier lost work):

- Axis in bars indicating sections and sub-sections, climaxes and tempo markings.
- Three-member GS hierarchy.
- Alternative primary 1: 1 pattern (22|50|22 bars) or CGSP (13||19: 31 ||: 22 bars). The B section of either pattern is a further CGSP based on an (outer) Lucas pair enclosing an inner pair of Fibonacci bar numbers – 11||8: 13||: 18 bars.
- Climaxes are inter-related and positioned through a separate GS symmetrical pattern with one subdivision. 'Pre-' and post climax bar numbers are also in GS proportion.
- Some selected additional remote GS proportions.

Hiawatha

Below: Robert Threlfall's reconstruction of *Hiawatha* (C.W. supplementary Vol 6). Missing passages from the extant score are indicated in red. Threlfall's interpolated bars are included:



The same, but with reconstructed passages removed to show the outline of a complete GS pattern:



Pattern 2 removes the interpolation between bar lines 16 and 29, but retains the remainder from bar lines 29 to 35, so that the main section begins at bar line 29 and in A major. *Hiawatha's Departure* serves as 2A'. This scheme would retain all the extant bars from bar line 199 above, but result in a shortening of the B section (*c.f.* 1 B (145 bars) with 2 B (127 bars)).



Pattern 3 retains the interpolation from bar lines 29 to 35, but recalculates the the B' section to give 249 bars, 19 bars more than the extant B' section (*c.f.* 1 B' and 3 B'):



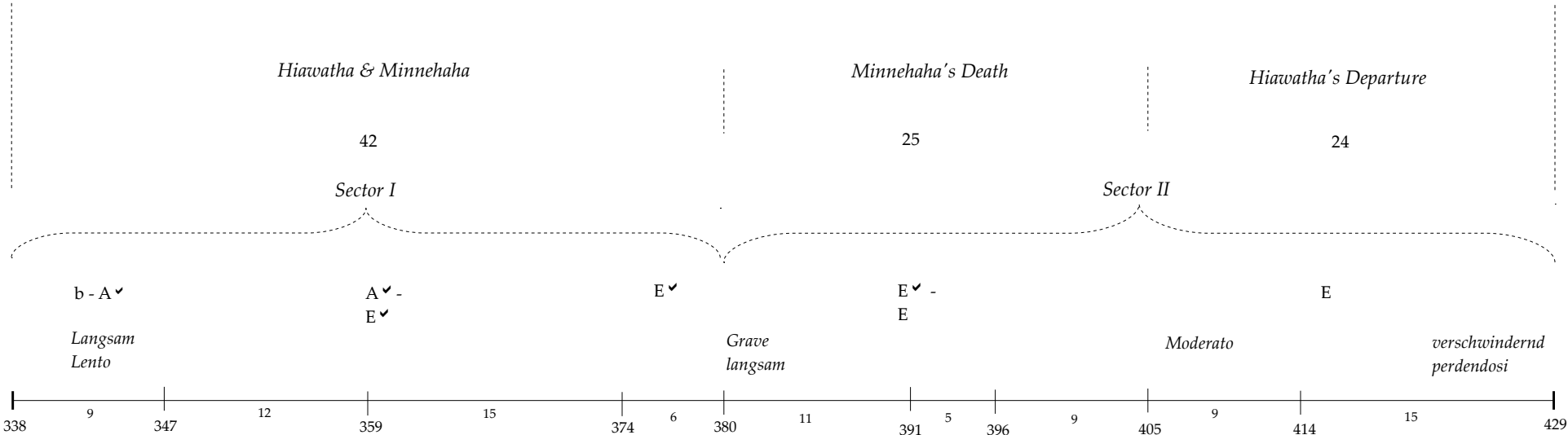
Pattern 4 retains only the two interpolated bars from bar lines 33 to 35, so that the main section following the prelude begins in E major at bar 33. This would involve an expansion of section B' of the original extant material from 230 to 238 bars.



Figure 3.2.1 *Hiawatha – Tone Poem for Orchestra* (Leipzig, 1888). The score is defective, two sectors of the original Leipzig work having been removed. The proportion and structure of the remaining pages (pattern 1) indicate Delius had himself removed the missing pages, intending to recompose the work in a complete GS pattern, with the primary S: L point separating the *Minnehaha* and *Wedding Feast Dance* sections. Patterns 2 to 4 illustrate three possible schemes for completing *Hiawatha* as a complete GS pattern. Of these, numbers 3 and 4 appear preferable to number 2, as this last would involve excising some extant material. Pattern 4 follows Rachel Lowe's comment (Lowe, 1974) that the existing introductory bars (here designated *Prelude*) end in E major (and not A major as in Threlfall's reconstruction) so indicating the *Hiawatha* section should begin in E major (and not A major).

Hiawatha

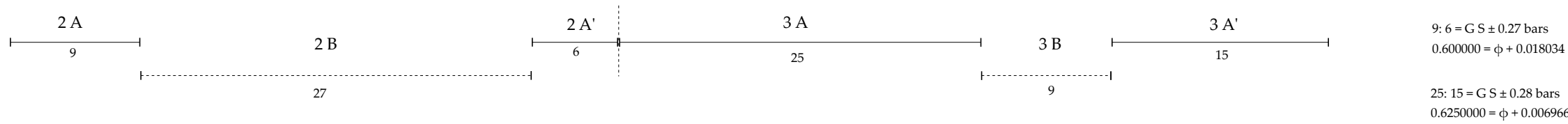
1.



2.



3.



4.



5.

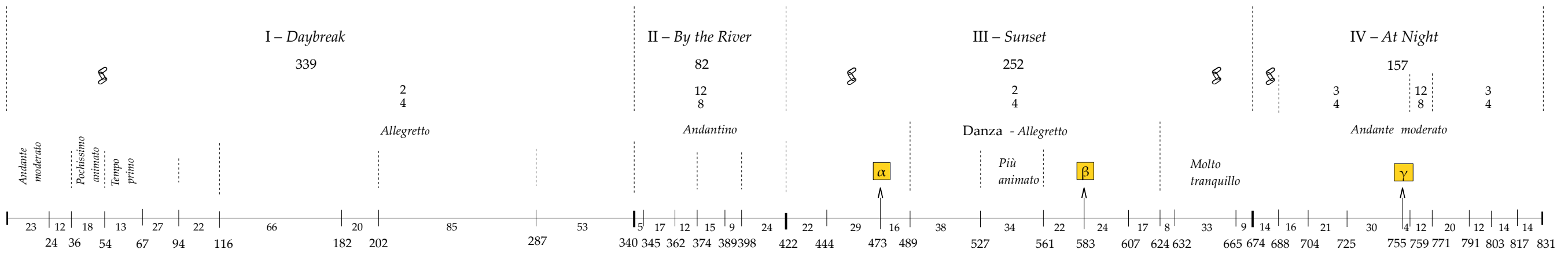


Figure 3.2.2 *Hiawatha – Tone Poem for Orchestra* (Leipzig, 1888).

- 1. Axis indicating the array of main events in the final 91 bars of the work.
- 2. Primary tripartite GS pattern (no 1) spanning Sectors I & II.
- 3. Secondary tripartite GS patterns (nos 2 and 3) constructed within each of Sectors I & II.
- 4. Two continuous GS divisions, 42: 25 and 9: 15 bars, together spanning both Sectors I and II.
- 5. Each sector has also been bi-sected (at barlines 359 and 405 respectively) adding some symmetrical reference within the overall design.

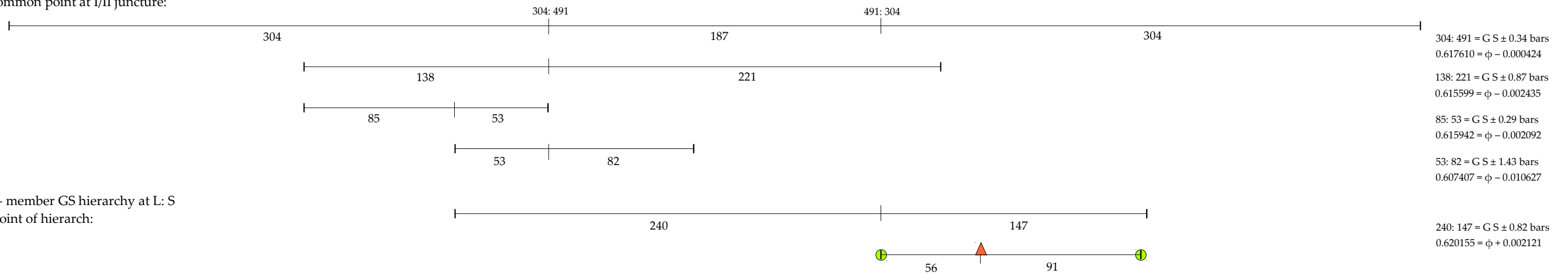
Florida Suite

1.



2. Primary GS division:

3- member GS hierarchy with
common point at I/II juncture:



3. Secondary 2- member GS hierarchy:

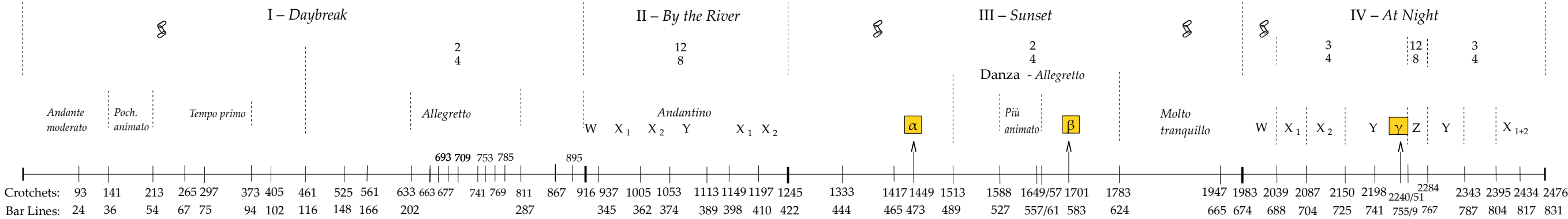


Figure 3.3.1: *Florida: Suite for Orchestra* – (Leipzig c. 1887, Movt III revised Paris 1889):

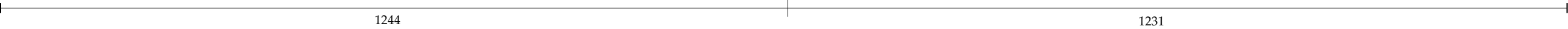
1. *Axis in bars* indicating the main sections and sub-sections, climaxes and tempo markings within the *Suite*.
2. Primary GS division showing two GS hierarchies, arising respectively at the S: L and L: S GS points of the division. Note the top division is therefore also a Symmetrical GS Pattern.
3. A secondary 2- member GS hierarchy arising at the juncture of the middle section with the return of the opening section of the *Allegretto* of Movement I..

Florida: Suite

1.



2. Primary 1: 1 division:



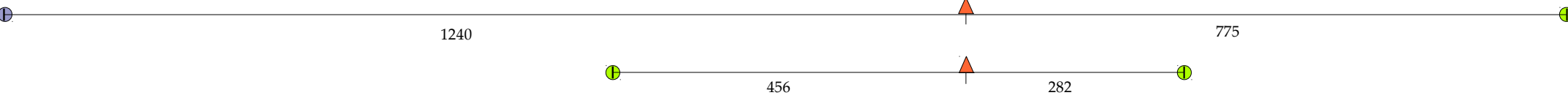
$1244: 1231 = 1: 1 \pm 6.5 \text{ q 's}$
 $1244/2475 = 0.502626$

3. Primary GS division:



$1447: 888 = G S \pm 3.89 \text{ q 's}$
 $0.619700 = \phi + 0.001666$

4. 2- Member GS hierarchy - 1:



$1240: 775 = G S \pm 5.34 \text{ q 's}$
 $0.615385 = \phi - 0.002649$

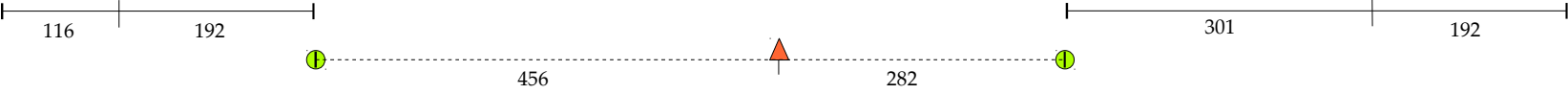
$456: 282 = G S \pm 0.11 \text{ q 's}$
 $0.617886 = \phi - 0.000148$

CGS P formation:



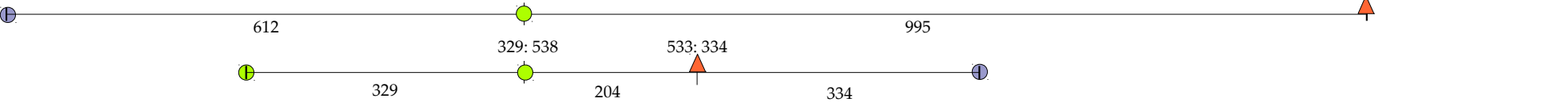
$784: 493 = G S \pm 5.23 \text{ q 's}$
 $0.613939 = \phi - 0.004095$

Switched CGS P formation:



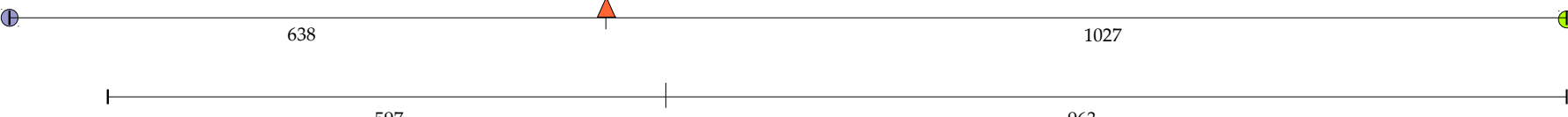
$116: 192 = G S \pm 1.65 \text{ q 's}$
 $0.623377 = \phi + 0.005343$
 $301: 192 = G S \pm 3.69 \text{ q 's}$
 $0.610548 = \phi - 0.007486$

5. 2- Member GS hierarchy - 2:



$612: 995 = G S \pm 1.82 \text{ q 's}$
 $0.619166 = \phi + 0.001132$
 $329: 538 = G S \pm 2.16 \text{ q 's}$
 $0.620531 = \phi + 0.002497$
 $533: 334 = G S \pm 2.84 \text{ q 's}$
 $0.614764 = \phi - 0.003270$

6. Additional GS divisions:



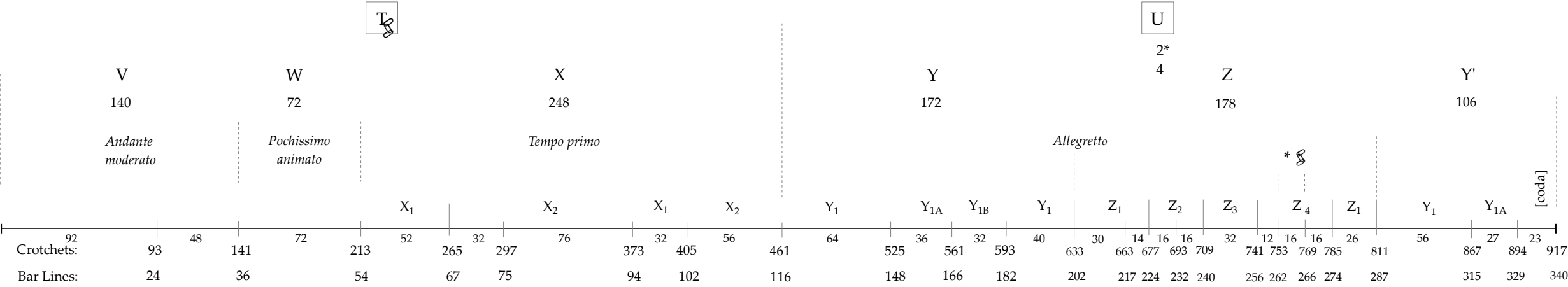
$638: 1027 = G S \pm 2.03 \text{ q 's}$
 $0.616818 = \phi - 0.001217$

- = movement delimiter
- = within-movement delimiter
- ▲ = climax or climactic point

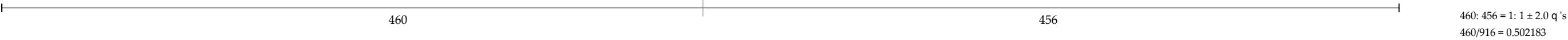
Figure 3.3.2: Florida: Suite for Orchestra – (Leipzig c. 1887, Movt III revised Paris 1889):

- Axis in crotchet beats indicating individual movements, sections and sub-sections, climaxes and tempo markings.
- Primary 1: 1 division at the juncture of movements II with III.
- Primary GS L: S division, with GS point at the start of the Più animato of the Danza – movement III.
- Two-member GS hierarchy, showing a CGSP and a switched CGSP built around the bar line 583 climax.
- Second two-member GS hierarchy.
- Additional GS subdivisions.

1. *Florida Suite I: Daybreak*



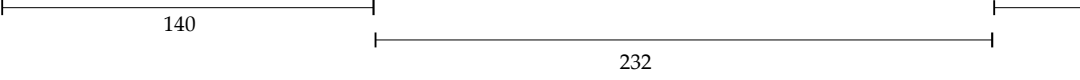
2. Primary 1: 1 division **



3. CGSP: Switched B section:



4. Tripartite GS pattern formation:



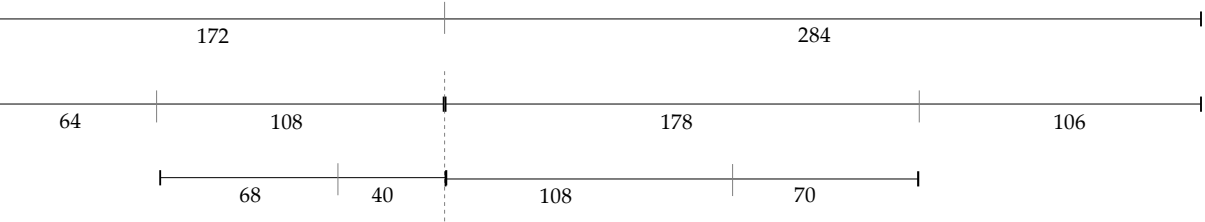
92: 56 = G S \pm 0.53 q 's
0.621622 = ϕ + 0.003558

120: 192 = G S \pm 0.83 q 's
0.615385 = ϕ - 0.002649

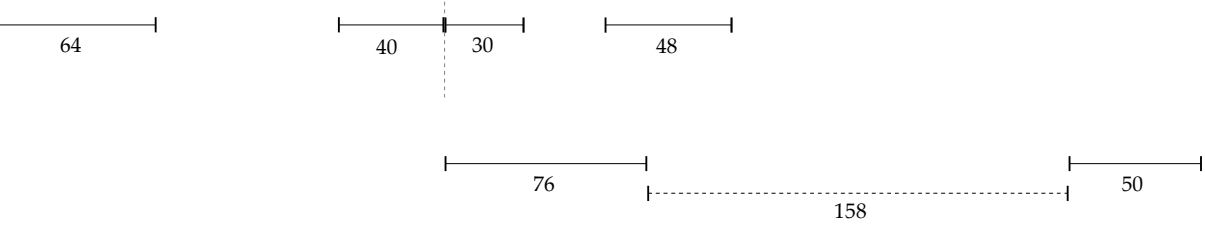
(92 + 192): (120 + 56) =
284: 176 = G S \pm 0.30 q 's
0.617391 = ϕ - 0.000643

140: 88 = G S \pm 0.91 q 's
0.614035 = ϕ - 0.003999

5. Type I GS division of sector U:



6. Tripartite GS pattern formation:



7.



460: 456 = 1: 1 \pm 2.0 q 's
460/916 = 0.502183

172: 284 = G S \pm 2.18 q 's
0.622807 = ϕ + 0.004773

64: 108 = G S \pm 1.70 q 's
0.627907 = ϕ + 0.009873
178: 106 = G S \pm 2.48 q 's
0.626761 = ϕ + 0.008727

68: 40 = G S \pm 1.25 q 's
0.629630 = ϕ + 0.011596

108: 70 = G S \pm 2.01 q 's
0.606742 = ϕ - 0.011292

44: 64 = G S \pm 2.75 q 's
0.592593 = ϕ - 0.025441

44: 26 = G S \pm 0.74 q 's
0.628571 = ϕ + 0.010537

64: 40 = G S \pm 0.28 q 's
0.615385 = ϕ - 0.002649

30: 48 = G S \pm 0.21 q 's
0.615385 = ϕ - 0.002649

76: 50 = G S \pm 1.87 q 's
0.603175 = ϕ - 0.014859

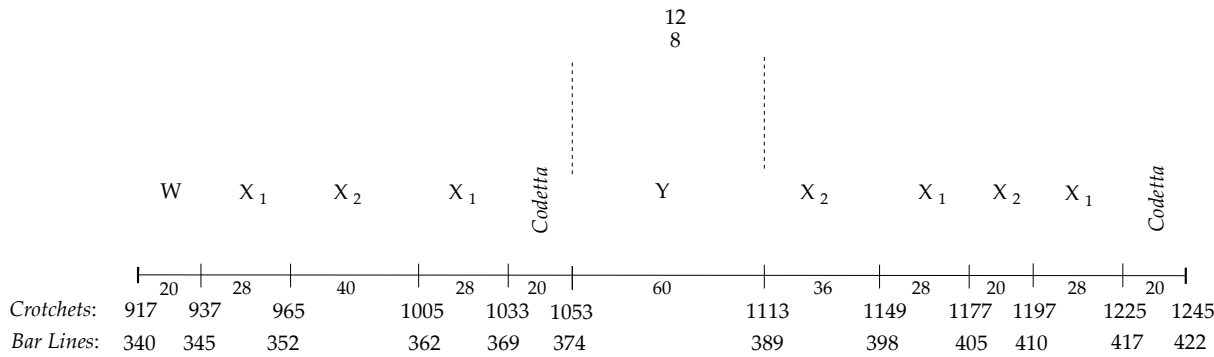
172: 106 = G S \pm 0.19 q 's
0.618705 = ϕ + 0.000671

Figure 3.3.3: *Florida Suite for Orchestra* (Leipzig c. 1887, Movt III revised Paris 1889): Movement I: *Daybreak*. N.B. Proportioning is shown in *crotchet reduction* throughout. Proportions which occur only in *crotchet reduction* (and not also bars) are indicated by a double asterisk (**).

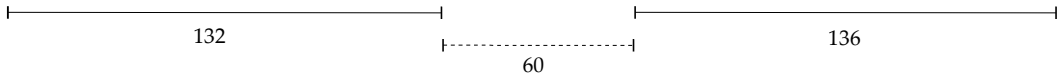
- Axis array of main musical features. Sections T and U denote the two main sections within Movement I. X, Y, Z etc. refer to contrasting passages based on different thematic materials.
- Shows the primary bisection of the movement at the juncture of T and U (*i.e.* after crotchet beat 460/ bar line 116)**
- Switched CGSP within section T.
- Tripartite GS pattern formation within section T.
- Type I GS subdivision of section U.
- Tripartite GS pattern formation within section U.
- Type I GS Pattern with musically matching (Y: Y') outer sections.

Florida Suite II – By the River

1.

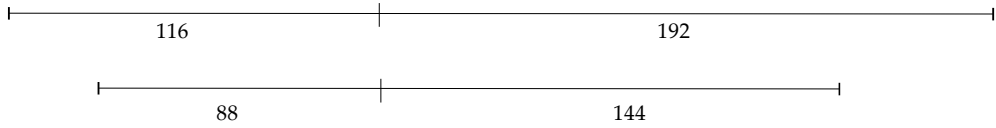


2. Primary 1: 1 pattern:



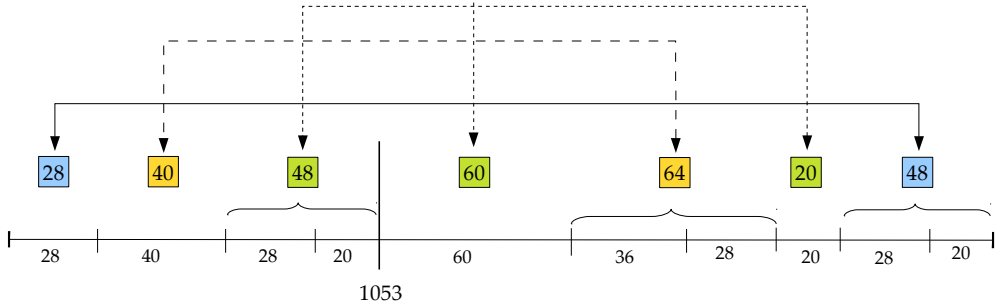
132: 136 = 1: 1 ± 2.00 q 's
136/268 = 0.507463

3. Two-member GS set:



116: 192 = G S ± 1.65 q 's
0.623377 = φ + 0.005343
88: 144 = G S ± 0.62 q 's
0.620690 = φ + 0.002656

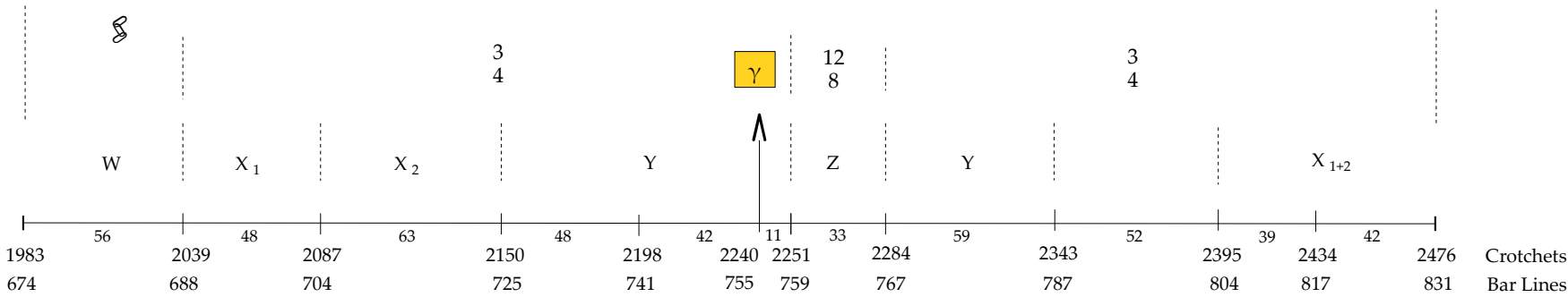
4. Pairing of GS complements from opposites sides of the GS point:



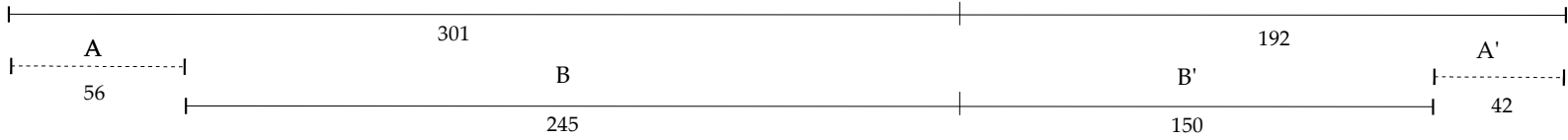
+
28 + 48 = G S ± 1.03 q 's 0.631579 = φ + 0.013545
(40 + 48) : (60 + 64 + 20) = 88: 144 = G S ± 0.62 q 's 0.620690 = φ + 0.002656
40 : 64 = G S ± 0.28 q 's 0.615385 = φ - 0.002649
48 : (60 + 20) = 48: 80 = G S ± 0.89 q 's 0.625000 = φ + 0.006966

Florida Suite IV – At Night

5.

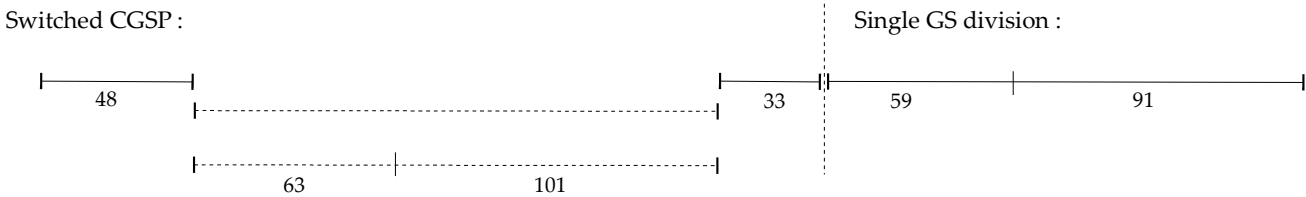


6. Two-member GS set showing CGSP formation:



301: 192 = G S ± 3.69 q 's
0.610548 = φ - 0.007486
245: 150 = G S ± 0.88 q 's
0.620253 = φ + 0.002219

7. Subdivision within the B sector of above CGSP:

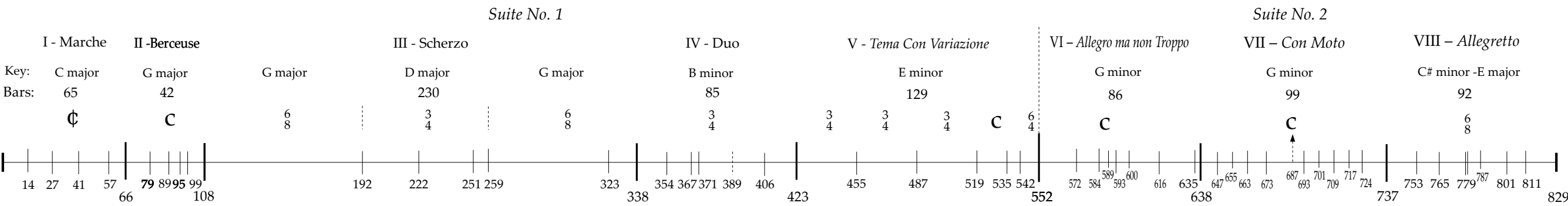


48: 33 = G S ± 2.06 q 's
0.592593 = φ - 0.025441
63: 101 = G S ± 1.50 q 's
0.615834 = φ - 0.002180
Unswitched CGSP:
(48+ 101): (63 + 33)
= 149: 96 = G S ± 2.43 q 's
0.608163 = φ - 0.009870
59: 91 = G S ± 1.71 q 's
0.606667 = φ - 0.011367

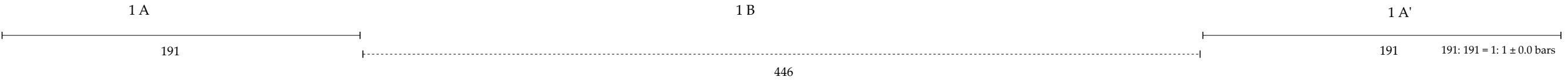
Figure 3.3.5: Florida Suite for Orchestra – (Leipzig c. 1887, Movt. III revised Paris 1889): Movements II and IV:

- Axis of Movement II in crotchet beats, indicating sections and sub-sections. W, X, Y etc. indicate passages of different thematic content.
- Primary 1: 1 pattern with a superimposed two-member GS hierarchy (No 3).
- The successive partitioning off of (here) S: L GS complements, one either side of (here) an existing S: L division, leaves the sums of the remaining crotchet totals either side of the GS point also in GS proportion. The individual members of any such GS pairing may also be variously subdivided, and, (within the limits of their respective short or long limb), be redistributed.
- Axis of Movement IV in crotchet beats,- cf. 1. above
- Two-member GS hierarchy and CGSP formation in Movement IV. 7. Additional subdivision within the B sector of no 6

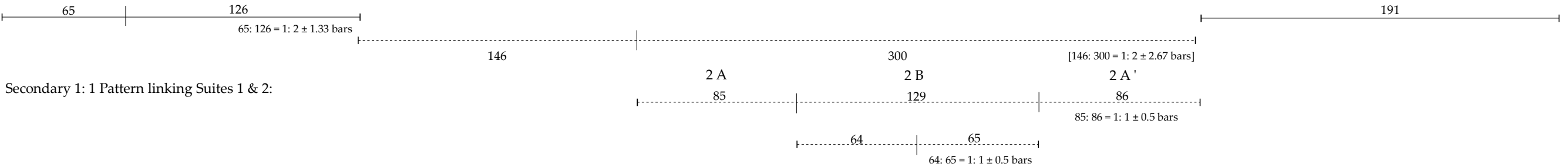
Petites Suites 1 & 2 – (combined in a continuous array)



Primary 1: 1 Pattern linking Suites 1 & 2:

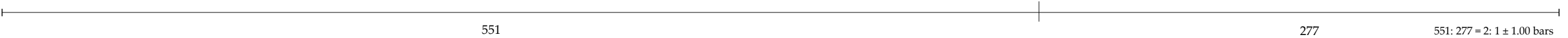


1: 2 subdivision of A and B sections of above pattern :

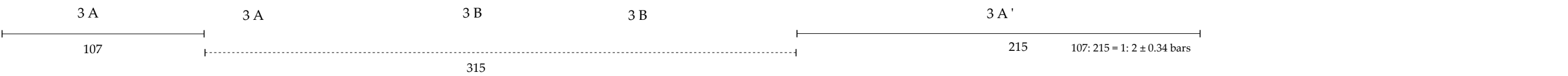


Secondary 1: 1 Pattern linking Suites 1 & 2:

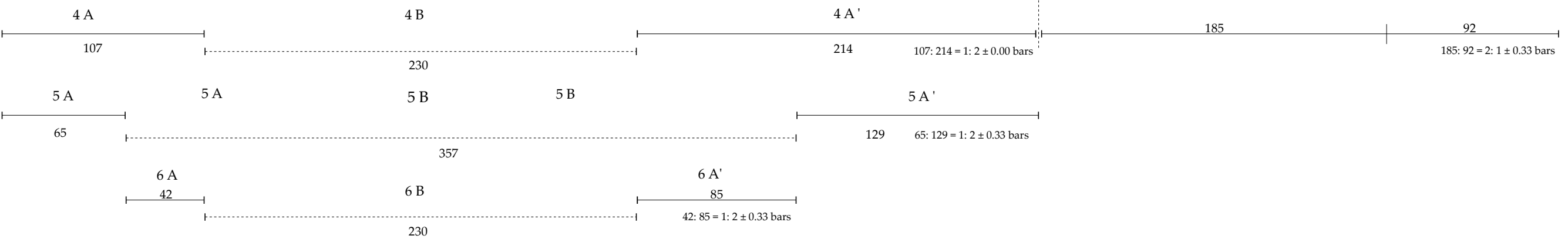
Primary 2 : 1 division linking Suites 1 & 2:



Linking 1: 2 pattern between Suites 1 & 2 :



Three 1: 2 patterns within Suite 1 :



2: 1 division within Suite 2 :

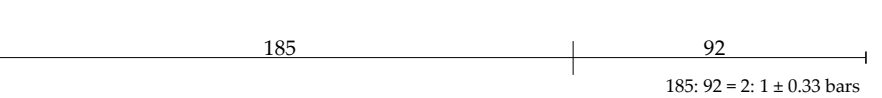


Figure 3.4.1: *Petites Suites d'Orchestre*: No. 1 (May 1889 – Movements I - V) combined with No. 2 (1890 – Movements VII – VIII) showing the proportional relationships between the two Suites:

The total numbers of bars in each Suite are in a 2: 1 proportion with each other (551: 277 bars).

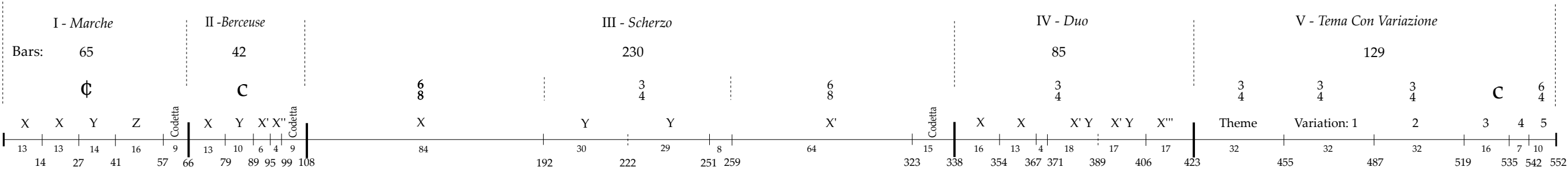
An overall 1: 1 pattern (1 ABA') is formed by combining the two Suites whose B section then divides 1: 2, and into a secondary 1: 1 pattern (2 ABA').

A 1: 2 pattern (3 ABA') linking the two Suites also occurs.

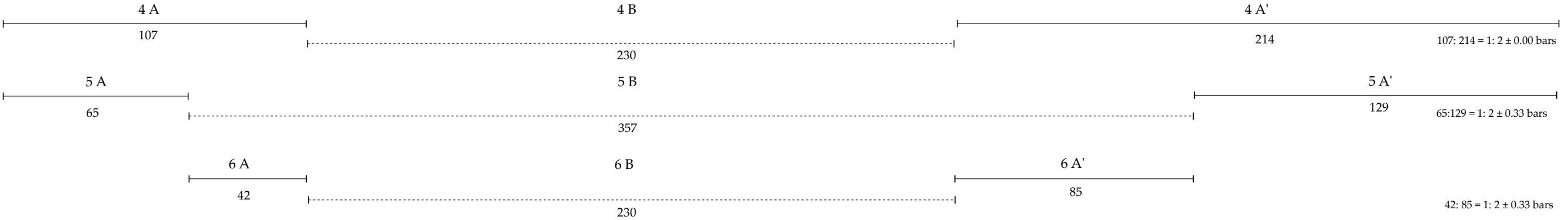
Preliminary 1: 2 pattern formation is shown in Suite 1 (ABA' patterns 4, 5 & 6), and a primary 2: 1 division in Suite No. 2. Note the complete absence of any GS proportioning in the upper levels of the hierarchy shown. For lower-level proportioning in each Suite refer to Figures 3.4.2 and 3.4.3.

Petite Suite no. 1

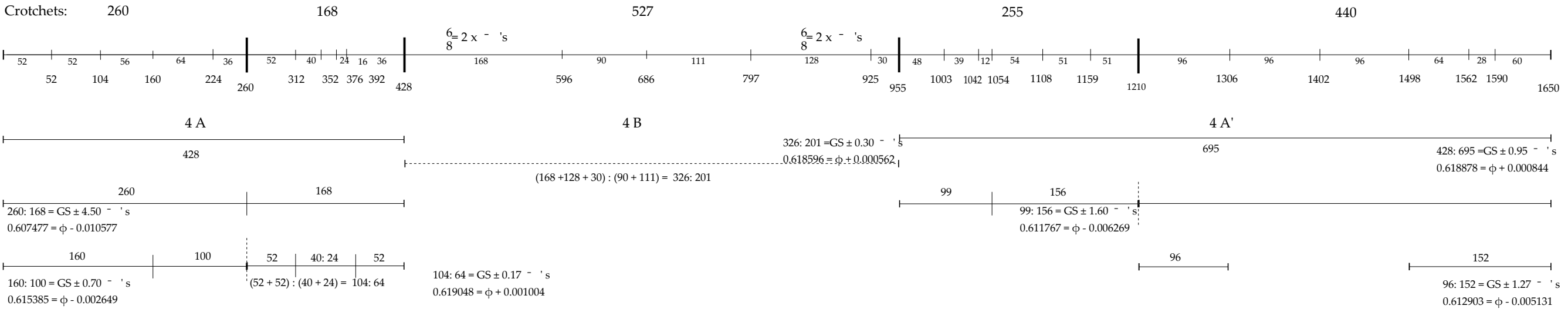
Upper axis: units in bars.



Three 1: 2 tripartite patterns:



Lower axis: units in crotchets.



GS Links between Movements:

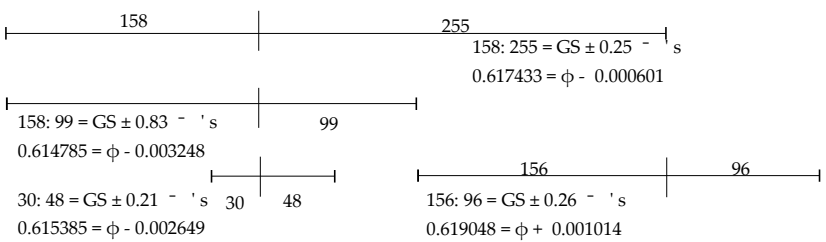
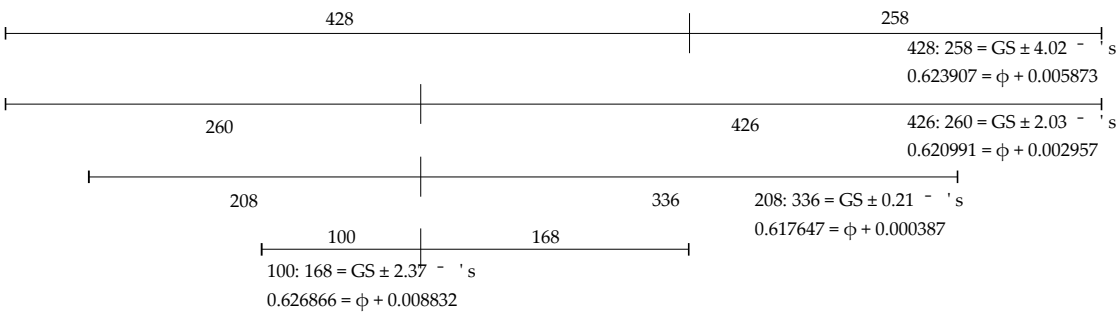
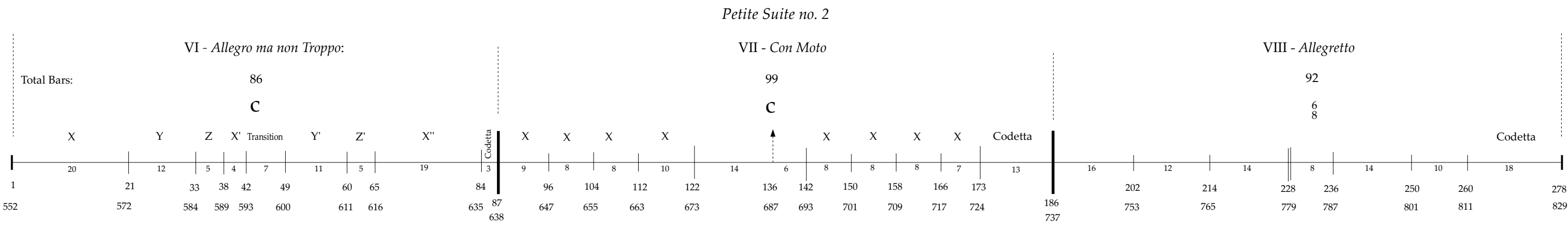


Figure 3.4.2 *Petite Suite d'Orchestre* (No. 1) May 1889:

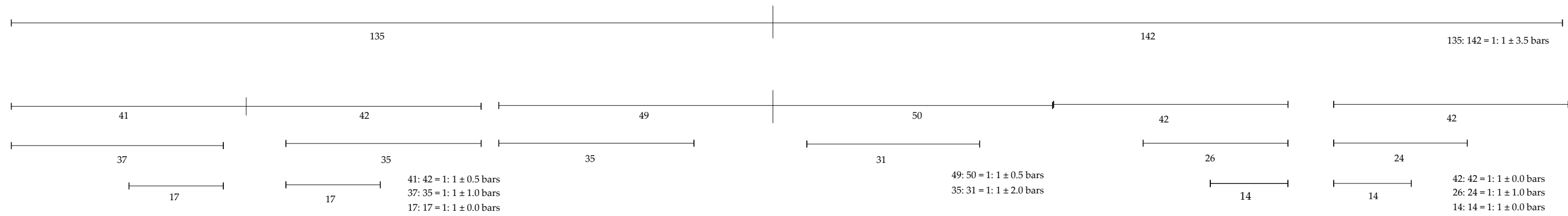
Upper axis (bars) showing the formation of three superimposed 1: 2 patterns.

Lower axis (crotchet 'beats') illustrating the presence of GS proportioning, and also the 'conversion' of the upper 1: 2 pattern into a precise GS pattern in crotchets. Equivalent GS patterns are absent in Mvts III and V when measured in bars.

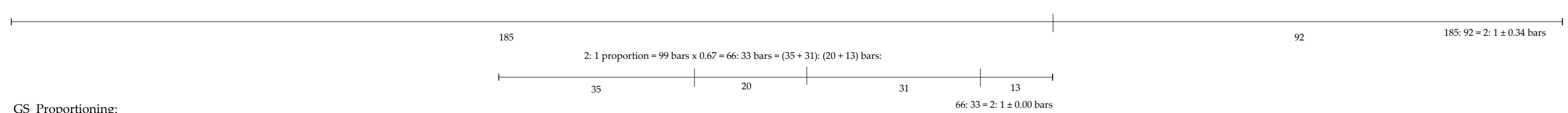
GS links occuring between movements when measured at the crotchet level.



1: 1 Proportioning (Bisection):



2: 1 Proportioning:



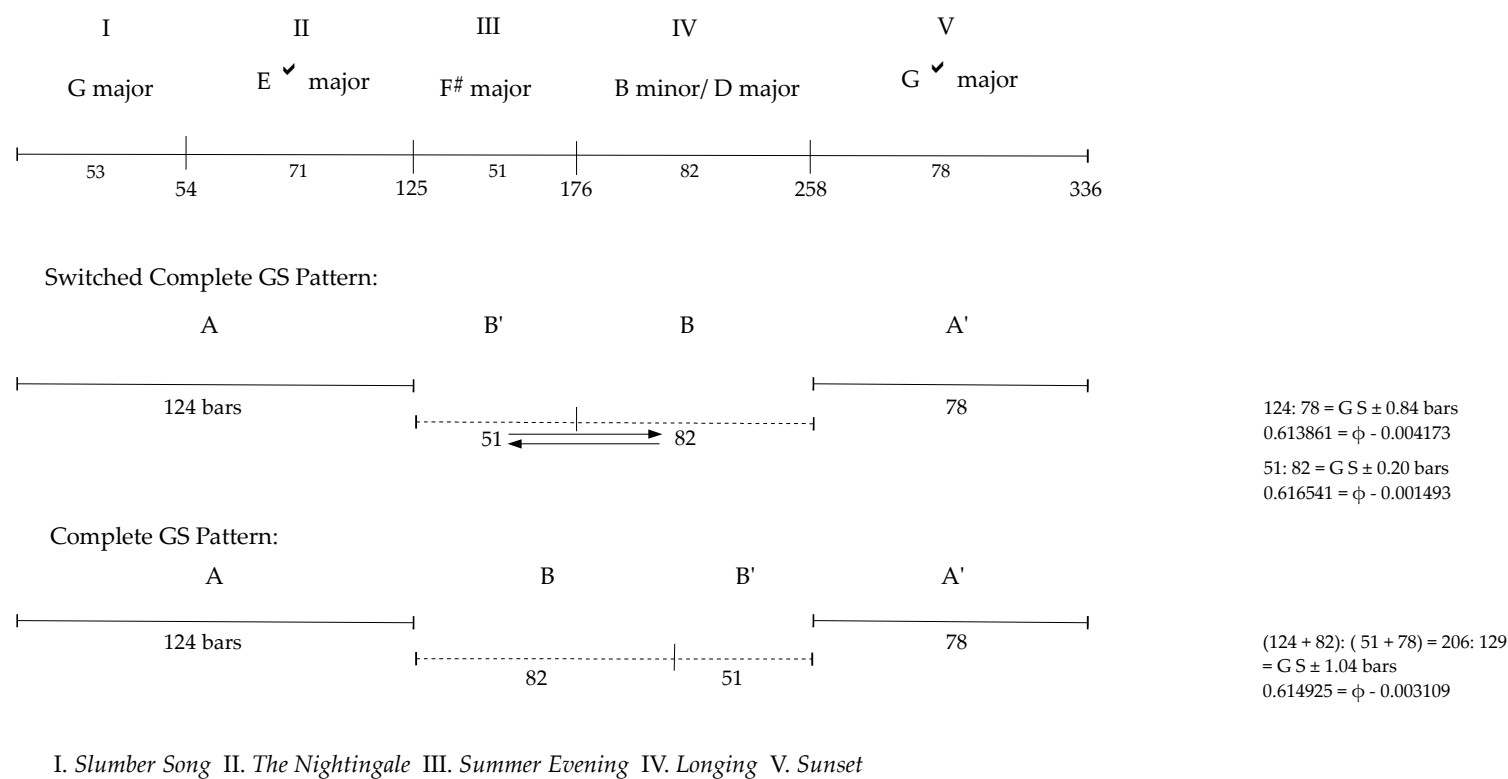
GS Proportioning:



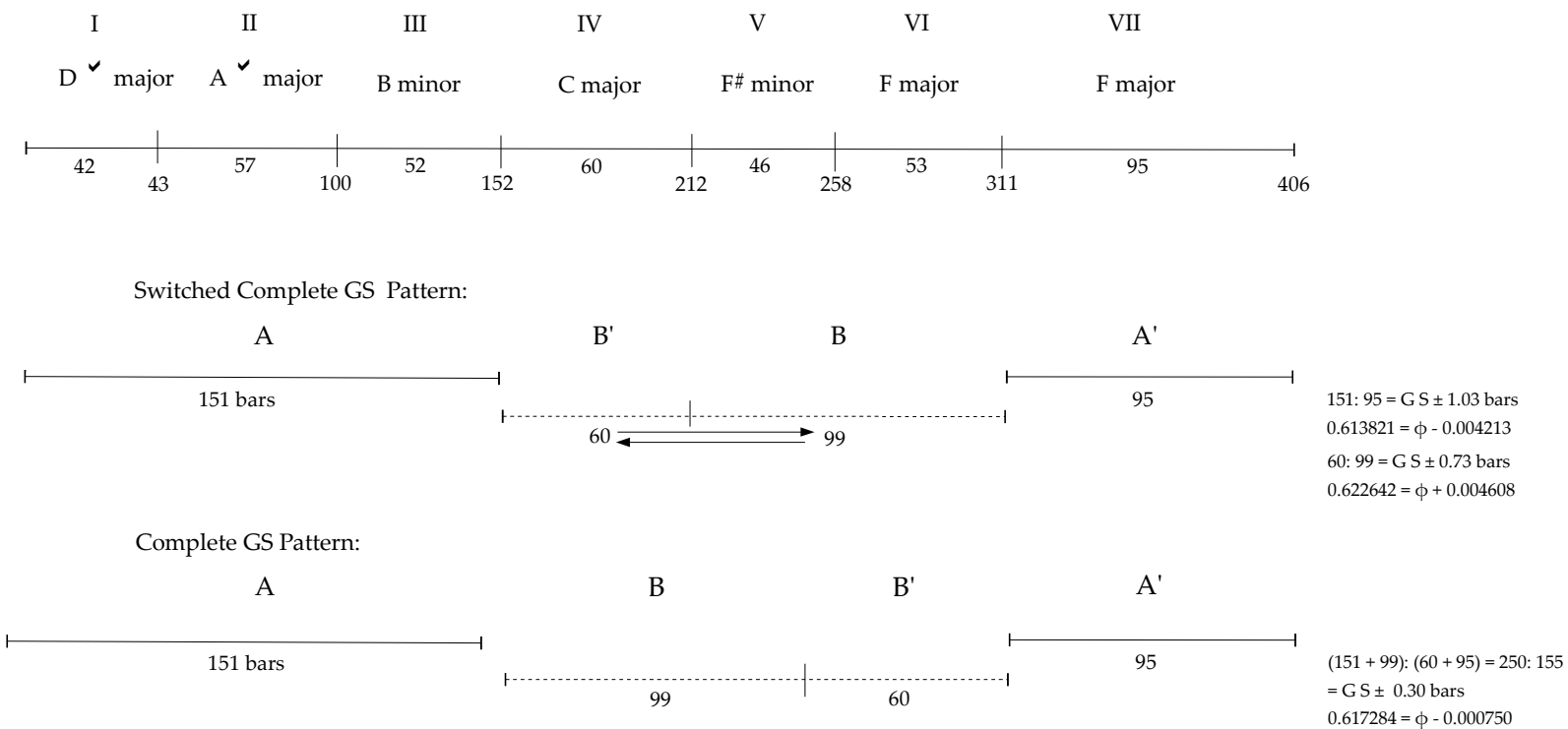
Figure 3.4.3 *Petite Suite d’Orchestre* (No.2) 1890:

Note: The diminishing frequency of GS and 2: 1 proportioning at lower levels of the hierarchy when compared with Suite No. 1.
and also the relative dominance of symmetrical patterns and 1: 1 divisions at upper levels.

Five Songs from the Norwegian 1888 (- c.1889)



Seven Songs from the Norwegian* (1889 - 1890).

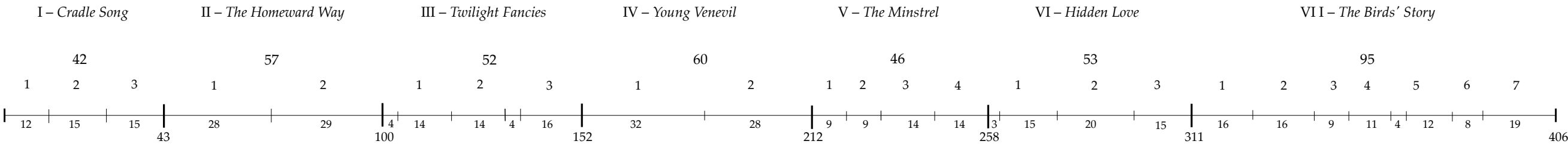


*Note: The order of the *Seven Songs* adopted here is that of the Augener edition (no. 8829b) of 1892:
I. *Cradle Song* II. *The Homeward Way* III. *Twilight Fancies* IV. *Young Venevil* V. *The Minstrel* VI. *Hidden Love* VII. *The Birds’ Story* .

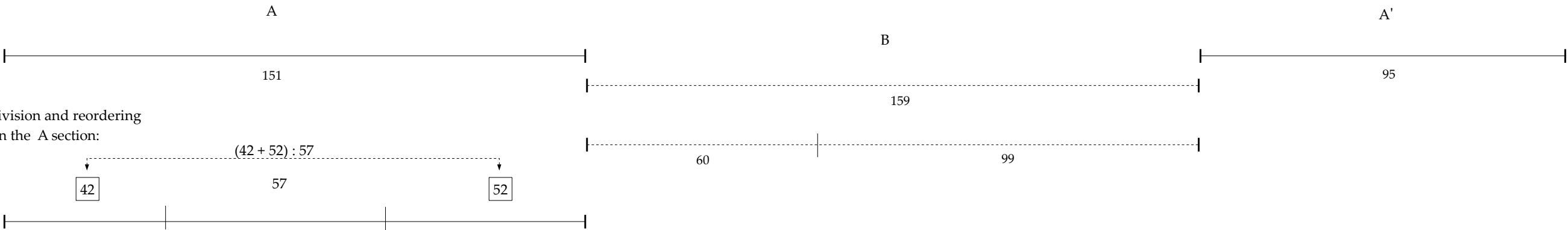
Figure 3.5.1 *Five Songs from the Norwegian* (1888) and *Seven Songs from the Norwegian* (1889 – 1890):
The Switched Complete GS Pattern: In both sets of songs the A: A' (outer) sections are in L: S GS proportion, whilst the B: B' (inner) sections are in S: L format. Switching the order of the two B components into L: S GS proportion converts both works into a Complete GS Pattern. Switching the order of the two A sections (but retaining the original order of the B sections) also creates a Complete GS pattern, but with the pairs of sections now both ordered in S: L proportion. Note that in the 1910 edition of the *Seven Songs* by Tischer & Verlag, the songs are printed in a different order to the above earlier Augener edition, so that the switched pattern has been lost.

Seven Songs from the Norwegian

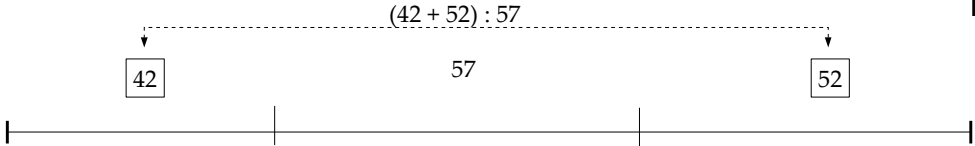
Order of Songs - 1892



Switched Complete GS Pattern:



Subdivision and reordering within the A section:

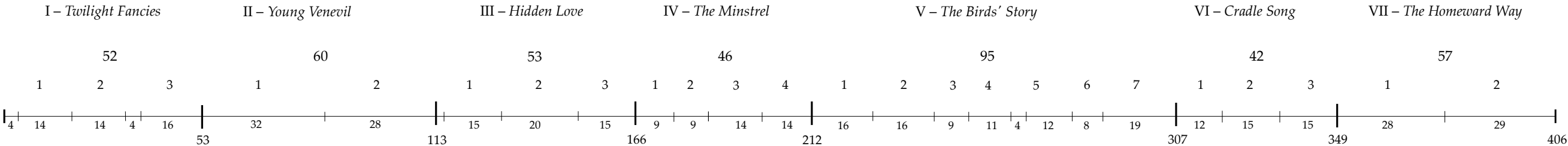


151: 95 = G S ± 1.04 bars
0.613821 = φ - 0.004213

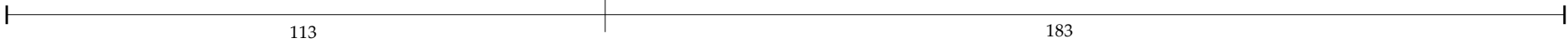
60: 99 = G S ± 0.73 bars
0.622642 = φ + 0.004608

Unswitched Pattern:
(151 + 99): (60 + 95) = 250: 155
= G S ± 0.30 bars
(42 + 52): (60 + 95) = 94: 155
= G S ± 0.68 bars
0.622517 = φ + 0.004483

Order of Songs - 1910



A single GS division replaces the above switched CGSP:



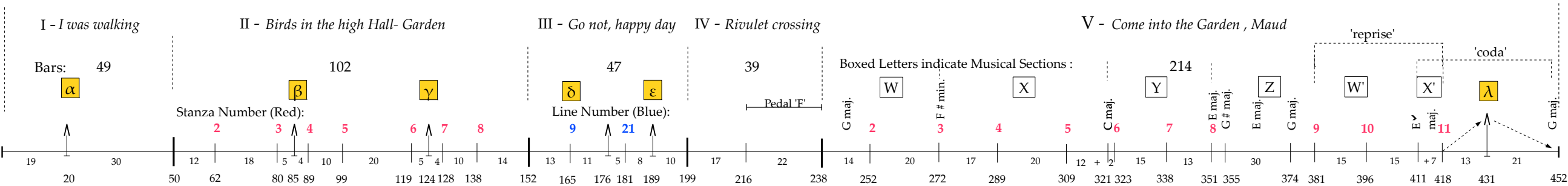
113: 183 = G S ± 0.06 bars
0.618243 = φ + 0.000209

Figure 3.5.2 *Seven Songs from the Norwegian* (1889 – 1890). The relative ordering of the songs in the 1892 Augener and in the 1910 Tischer & Jagenberg editions:

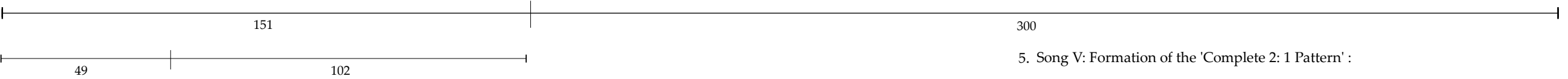
The upper axis (earlier edition) shows the songs presented in a switched complete GS pattern with some additional GS subdivision in the A section. In the later edition (lower axis) the overall switched pattern is lost, and is replaced with a single GS division of 113: 183 bars, and which excludes the first and final songs.

Maud - Five Songs to Words by Tennyson

1.

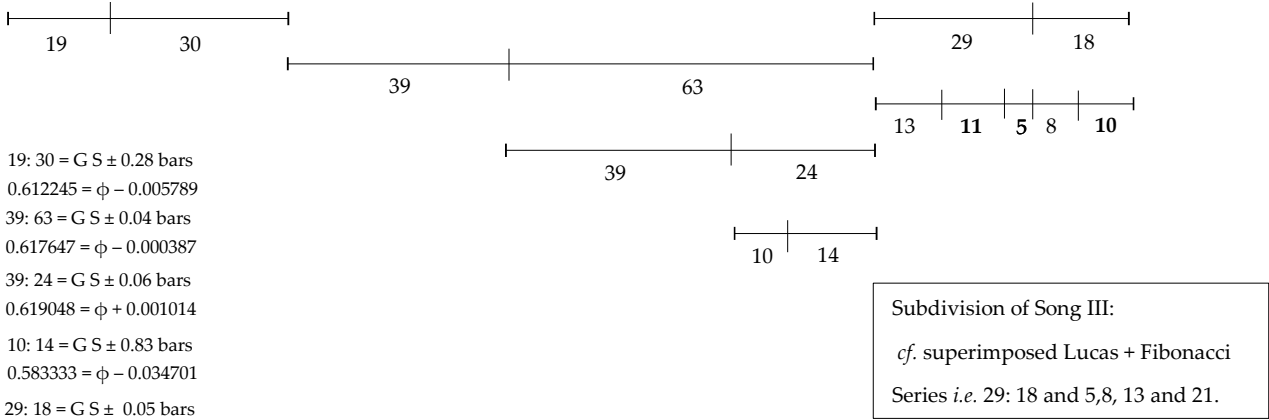


2. Primary 1: 2 Division with 1: 2 subdivision:



151: 300 = 1: 2 ± 0.67 bars
300/451 = 0.665188
49: 102 = 1: 2 ± 1.33 bars
102/151 = 0.675497

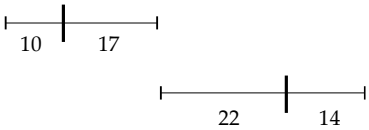
3. Type I GS subdivision within Songs I – III:



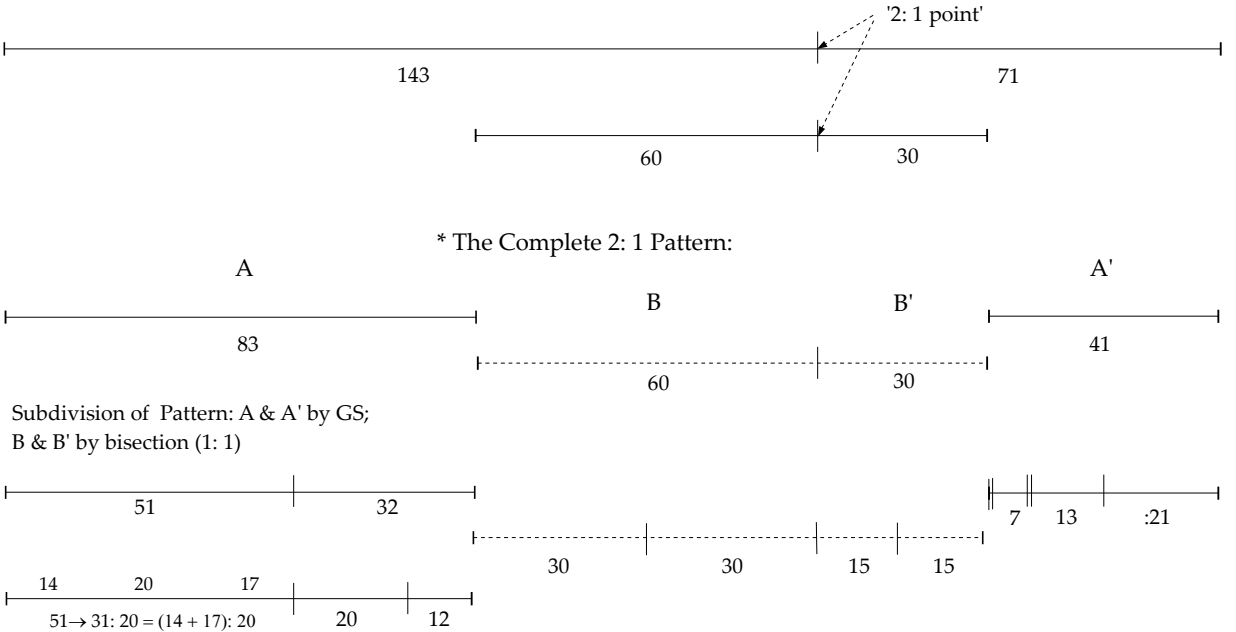
19: 30 = G S ± 0.28 bars
0.612245 = ϕ - 0.005789
39: 63 = G S ± 0.04 bars
0.617647 = ϕ - 0.000387
39: 24 = G S ± 0.06 bars
0.619048 = ϕ + 0.001014
10: 14 = G S ± 0.83 bars
0.583333 = ϕ - 0.034701
29: 18 = G S ± 0.05 bars
0.617021 = ϕ - 0.001013

Number Series Song II:
cf. [3, 6,] 9, 15, 24, 39, 63 and 102.
= triple Fibonacci: 3 (1, 2, 3, 5, 8, 13, 21 & 34).

4. GS Links between Song IV and neighbouring Songs:

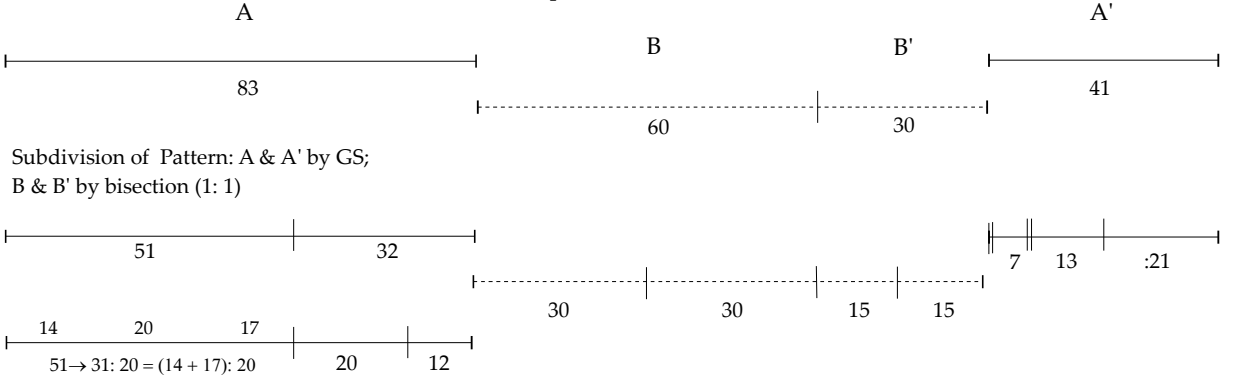


5. Song V: Formation of the 'Complete 2: 1 Pattern':



143: 71 = 2: 1 ± 0.33 bars
143/214 = 0.668224
60: 30 = 2: 1 ± 0.00 bars
60/90 = 0.666667

* The Complete 2: 1 Pattern:



83: 41 = 2: 1 ± 0.33 bars
83/124 = 0.669335

* In the Complete 2: 1 Pattern:

$$(A + B) / (A + B + B' + A') \approx 0.666667$$

$$A' / A = B' / B = B' + A' / A + B \approx 0.500000$$

This pattern differs from the partly analogous *Complete GS Pattern* in that in the latter design a value of ϕ would be obtained for all of the above proportions.

10: 17 = G S ± 0.31 bars
0.629630 = ϕ + 0.011596
22: 14 = G S ± 0.25 bars
0.611111 = ϕ - 0.006923

Figure 3.6.1 *Maud* - [Five settings from Tennyson's *Maud* Part I – for Tenor and Orchestra] (songs III–V dated 1891; numbers I and II are probably contemporary – see CW Volume 16:

1. Axis in bars indicating individual songs, song sub-sections, climaxes and tempo markings.
2. Primary 1: 2 division grouping Songs I–II and III–V in a 1: 2 proportion. A 1: 2 subdivision places Songs I and II in the same proportion with one another.
3. GS subdivision within Songs I – III. 4. Song IV lacks any internal GS subdivision but is linked to Songs III and V by shared GS divisions.
5. Formation of the Complete 2: 1 Pattern in Song V showing further subdivision by 1: 1 and GS division.

Maud - Five Songs to Words by Tennyson

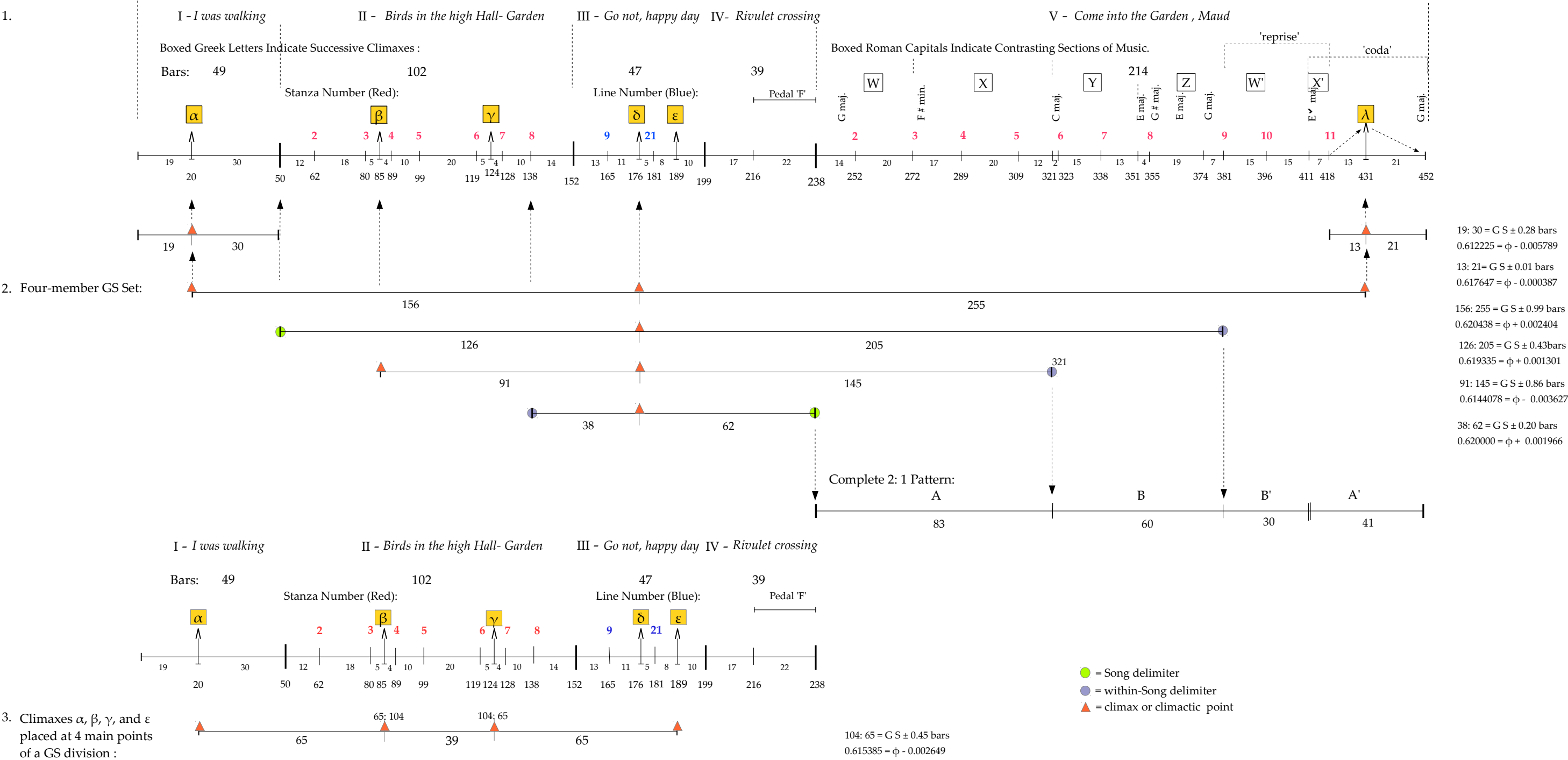


Figure 3.6.2 *Maud* - [Five settings from Tennyson's *Maud* Part I – for Tenor and Orchestra] (songs III – V dated 1891; songs I and II are thought to be contemporary):

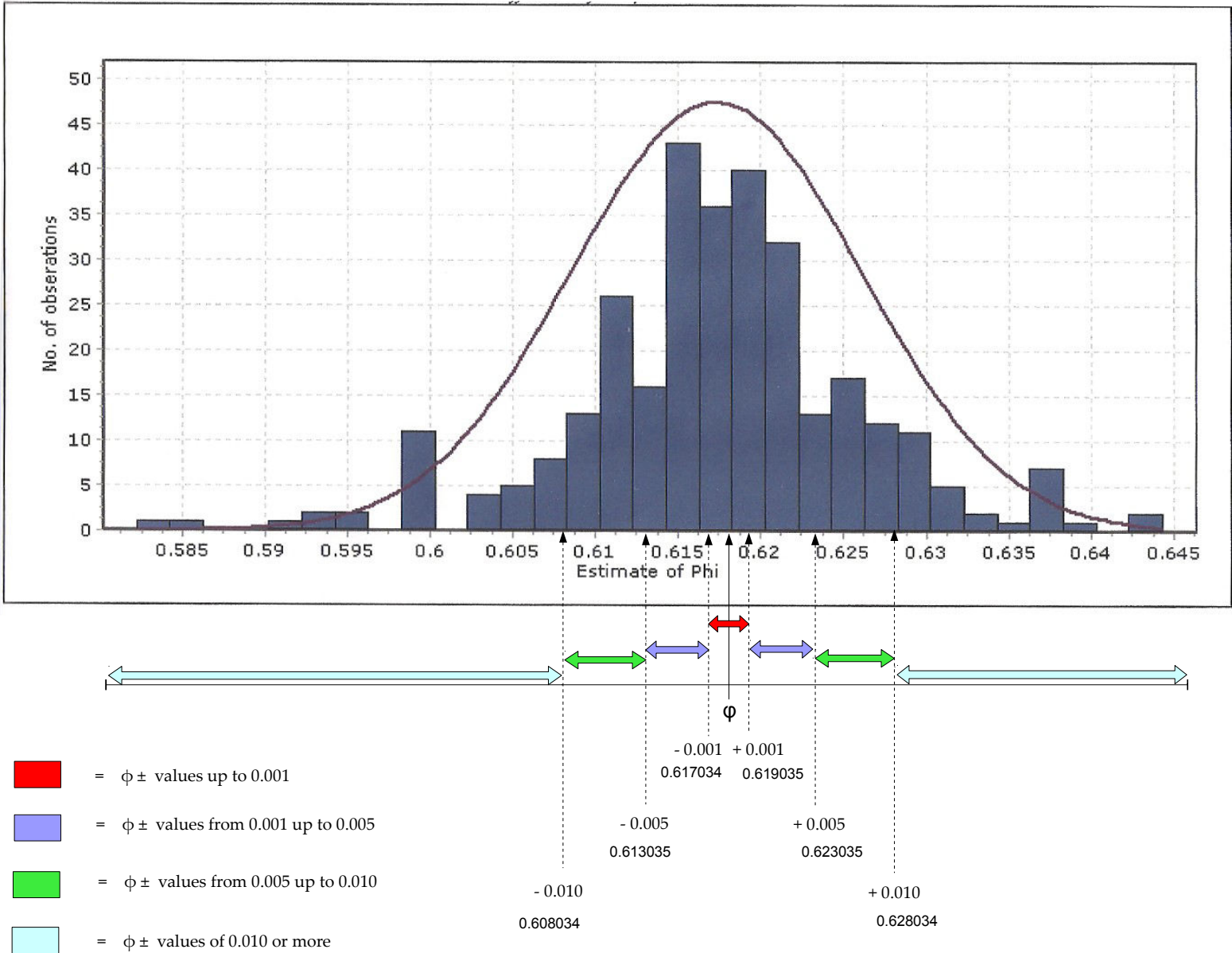
- Axis in bars indicating individual songs, song sub-sections, climaxes and tempo markings.
- Four-member GS hierarchy. The topmost member places climaxes α , δ , and λ in GS relationship with one another, the third member places climaxes β and δ and the A/B juncture of the Complete 2: 1 Pattern (Movement V) in GS inter-relationship. The latter end points of the fourth and second members respectively mark the starts of section A and the B/B' juncture of the 2: 1 pattern.
- Climaxes α , β , γ , and ϵ are positioned (in a Symmetrical GS Pattern) at the four main points of a GS division of 169 bars.

The overall proportioning scheme suggests that Delius intended the order of the five songs to follow that of the text of Tennyson's original poem (as adopted here).

1.

ANOVA							
Source of Variation	d.f.	SS	MS	F	p-level	F crit	Omega Sqr.
Between Groups	25	0.001297	0.000052	0.658488	0.894381	1.544647	-0.028135
Within Groups	286	0.022539	0.000079				
Total	311	0.023837					

2.



3.

Sample size	312	Mean	0.617307
Standard Deviation	0.008755	Median	0.617647
Skewness	-0.359823	Kurtosis	4.560275
Alternative Skewness (Fisher's)	-0.361564	Alternative Kurtosis (Fisher's)	1.605051

Test Statistics	p-level	Conclusion: (5%)
Shapiro-Wilk W	0.970727	Reject Normality
D'Agostino Skewness	2.579615	Reject Normality
D'Agostino Kurtosis	3.674761	Reject Normality
D'Agostino Omnibus	20.158283	Reject Normality

Figure 3.7 Estimation of ϕ in selected works of Delius' Leipzig and early Paris years (c. 1887 – c. 1892):

- An initial analysis of variance computed on the raw data from 18 different works (totalling 312 estimates of ϕ) indicated there were no significant differences between estimates of ϕ among these 18 works. All 312 samples were pooled for nos 2 & 3 below, therefore:
- Histogram showing the distribution of estimates of ϕ : about 80% of all values lie between 0.608035 and 0.628034 i.e. $\phi \pm 0.010000$, as shown. For practical assessments, a value of $\phi \pm$ a deviation of not > 0.001000 was adopted in the present work as a guide to the acceptance of a proportion as being GS. Colour coding indicating different levels of precision is also illustrated.
- Table indicating that the distribution shown in 2. does not follow the normal distribution: for instance, values cluster markedly about the mid-range, resulting in a more constricted and relatively higher-peaked distribution than is found in the normal distribution (a fitted normal distribution curve is shown in black in the above histogram). This could result, for example, from a *planned* or *selective* use of the GS proportion in the compositional process, & as distinct from GS proportions arising from *incidental* or

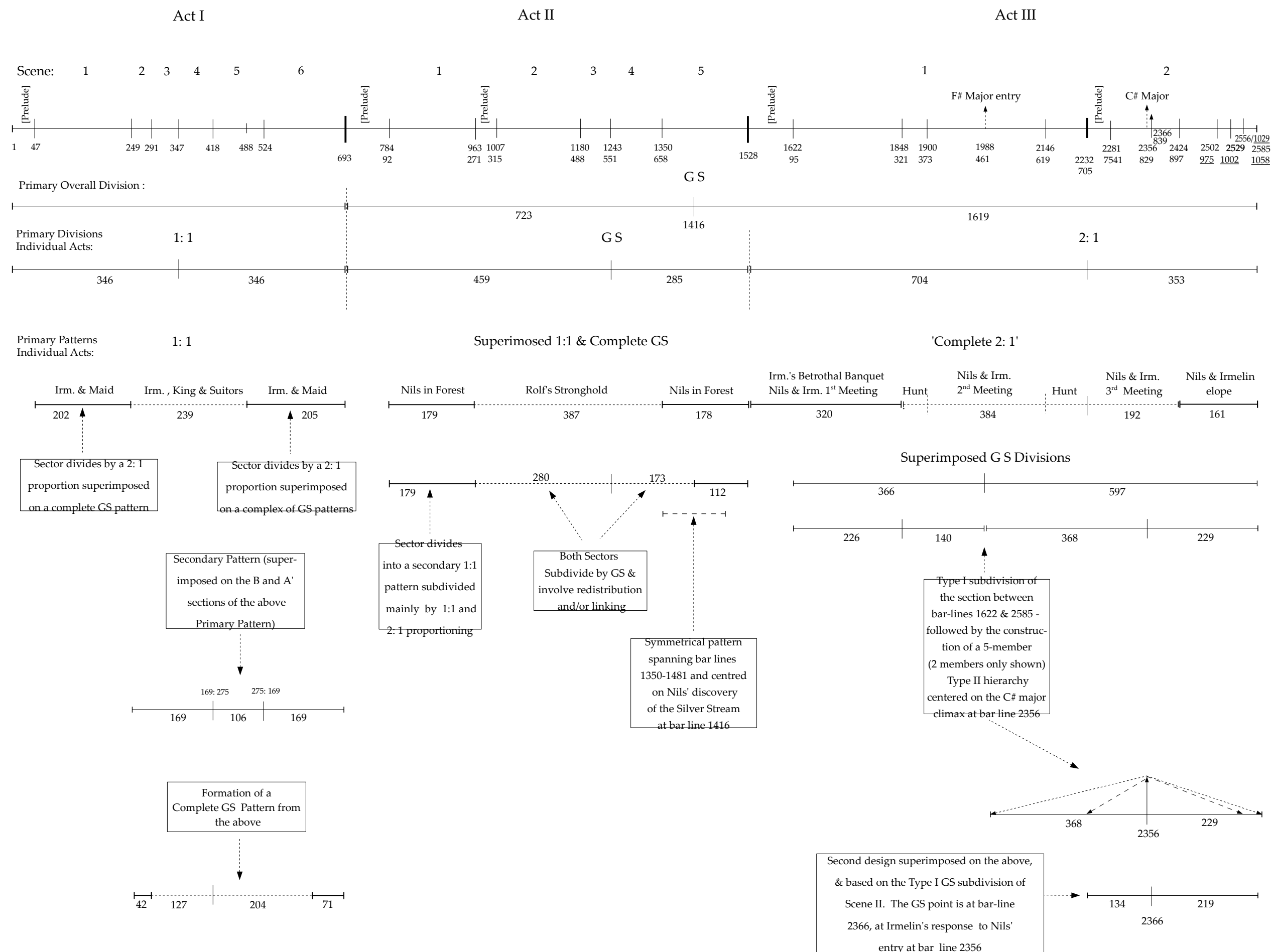
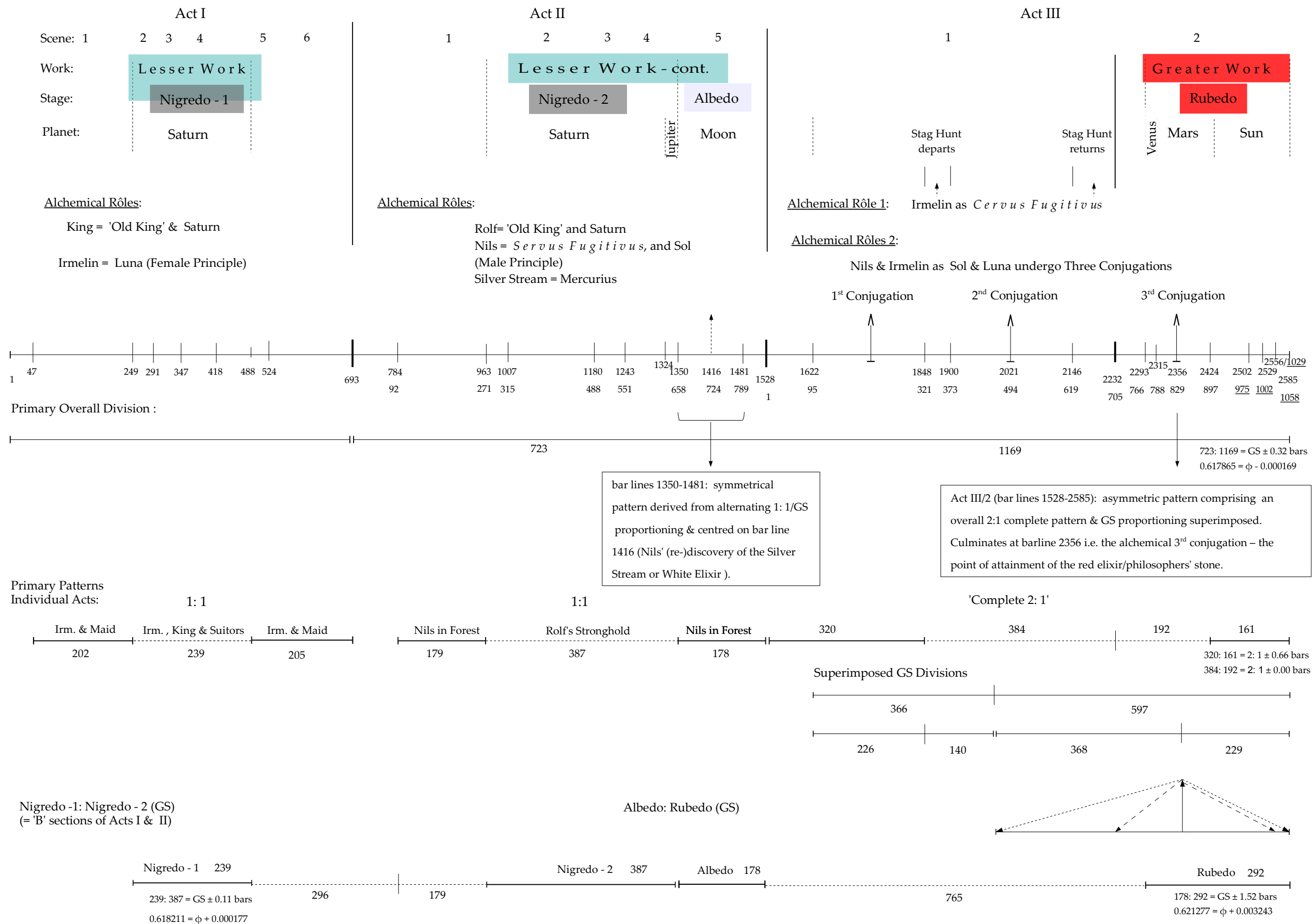
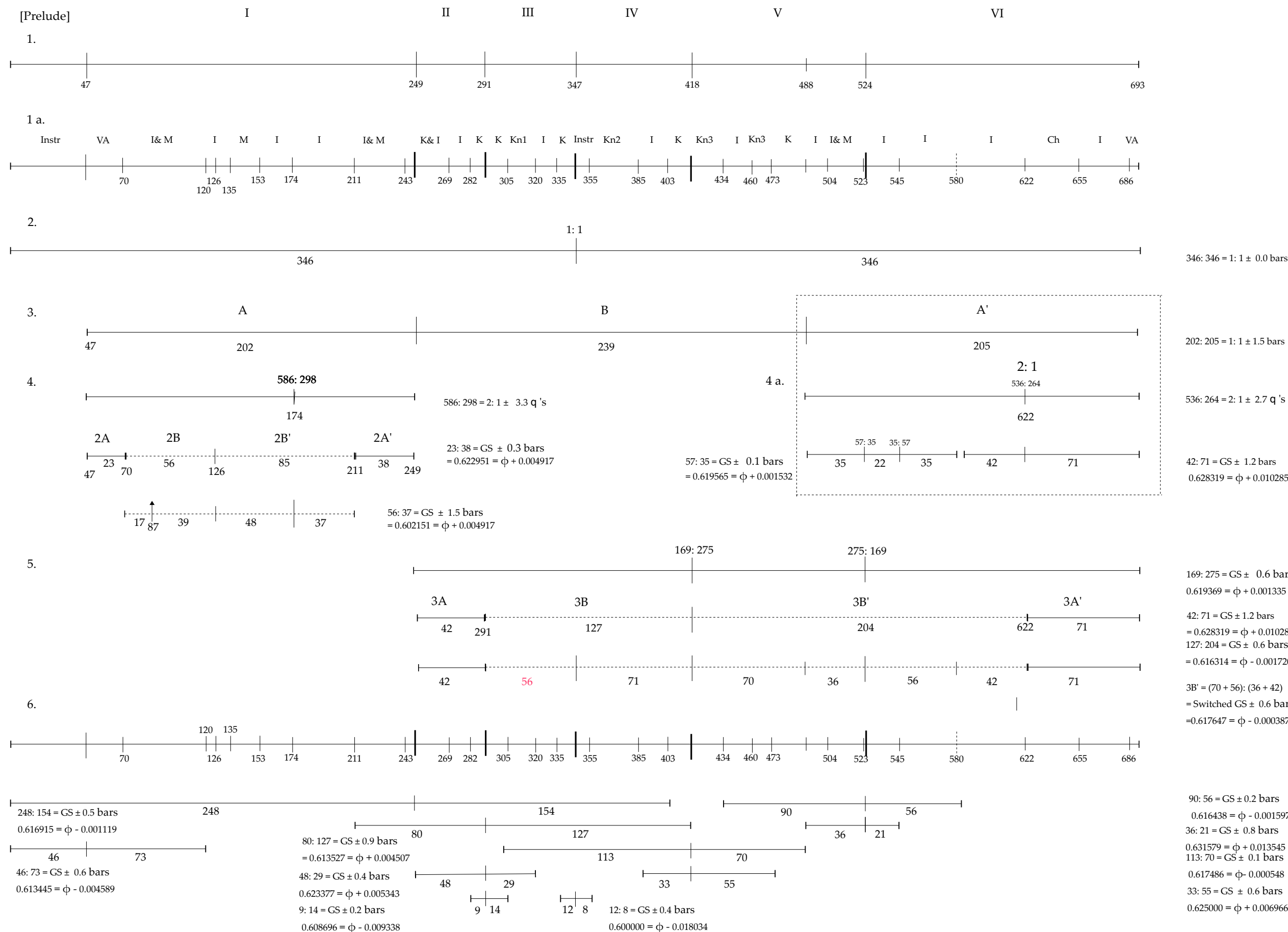


Figure 4.1 *Irmelin* (1890 – 92): Acts I – III:

Summary of the main stages of proportioning. For further details refer to Figures 4.3, 4.4 (Act I), Figures 4.5, 4.6 (Act II) and Figures 4.7 – 4.9 (Act III).

Underlined bar numbers in Act III Scene 2 denote renumbered bars following omission of the music between bar lines 960 – 975 (*cf. Complete Works* Volume 1).





1. Division by 2: 1 proportion of the complete 205-bar section at entry of the chorus (bar line 622) (crotchet beats).
2. Irregular division of the 205-bar section at bar line 580 into 92 and 113-bar sectors..
4. GS division of the 92-bar sector with the S: L and L: S GS points equally observed, forming a symmetrical 35|22|35 – bar GS pattern.
3. Overall complete GS pattern with B section switched.
- 3 a. GS symmetrical design of 23: 34, 35:22 and 23|12|22 bars within section 1 A above.
5. ABA' (tripartite) pattern, Type I (= 'unmatched')

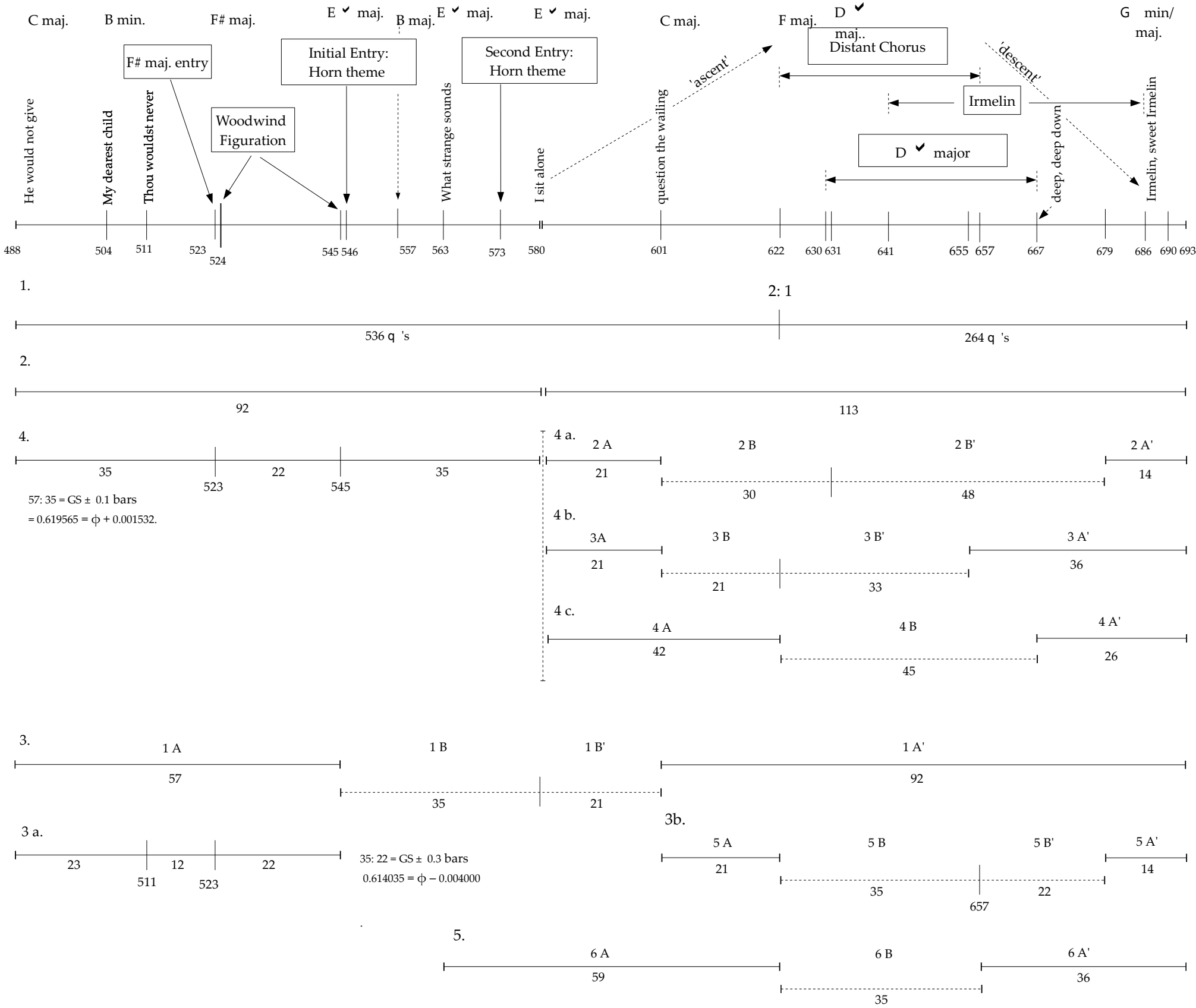


Figure 4 .4 *Irmelin* (1890 – 2) Act I showing subdivision of bars 488-692 (= section A' of Figure 4.3):

1. Subdivision at entry of chorus (bar line 622) into a 2: 1 proportion (crotchet beats).
2. Subdivision at bar line 580 into two unequal sectors of 92 and 113 bars.
3. Formation of an overall switched B pattern – 57||35: 21||:92 from the 57 and 92-bar sectors.
- 3a. Subdivision of the 57-bar sector at the S: L and L: S GS points and of, (at 3b), the 92-bar sector into a complete GS pattern - 21||35: 22||: 14 bars.
4. Subdivision of the 92-bar sector at the S: L and L: S GS points marking the 'entries' into F# major and the woodwind figuration accompanying the horn theme.
- 4a – 4c. Three alternative pattern configurations of the 113-bar sector.
5. Additional pattern formation over bars 563 – 692.

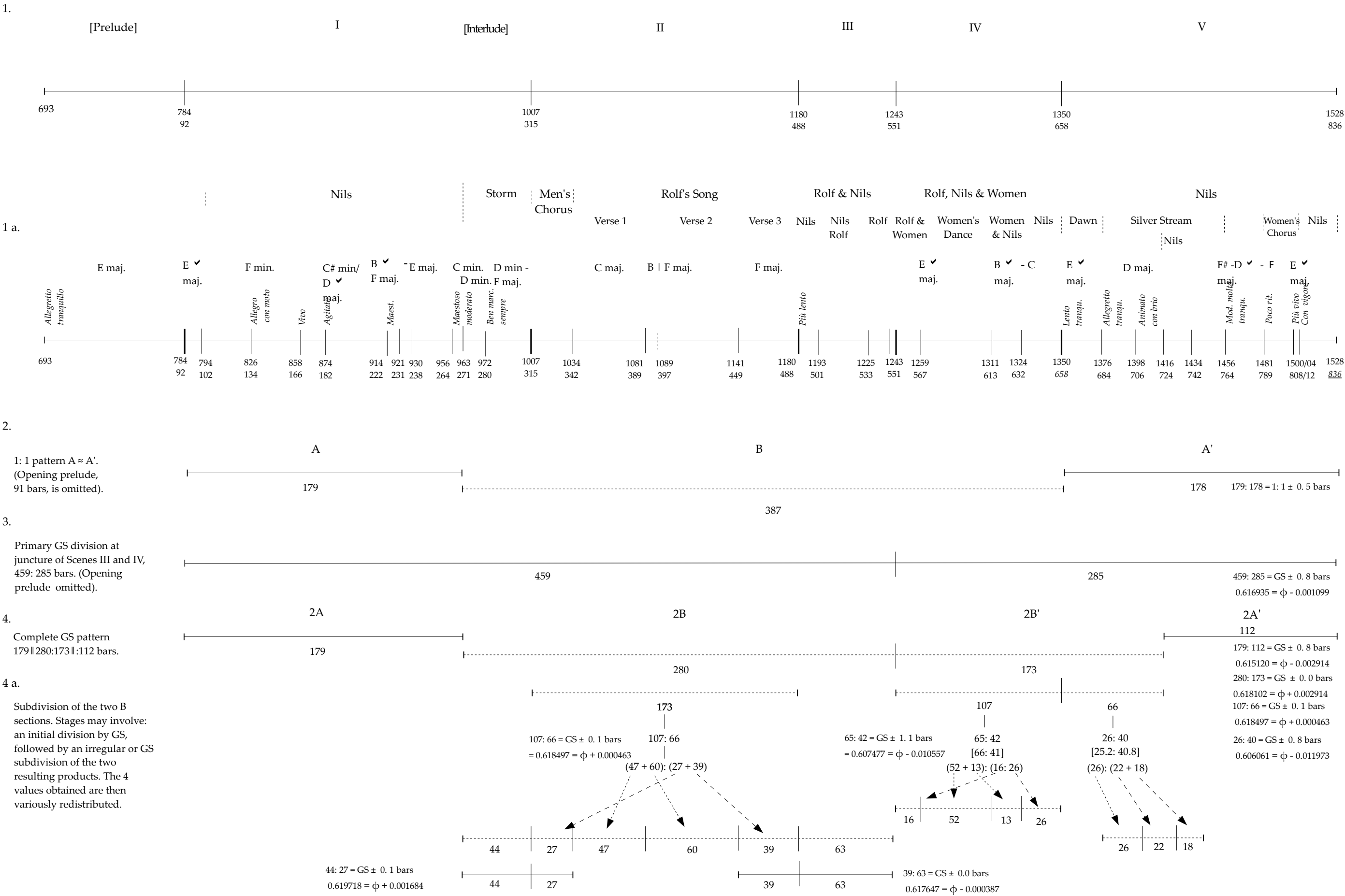


Figure 4.5 *Irmelin* (1890 – 2) Act II:

1. and 1 a. show the placement of the five scenes, and of characters and stages within each scene.
2. – 4 a. Show component formations within the overall proportioning design as shown. NB bar line 724 [1416], ('Nils' (re)-discovery of the Silver Stream') signifies the attainment of the white elixir, white stone or the 'silver making stage' of the alchemical allegory.

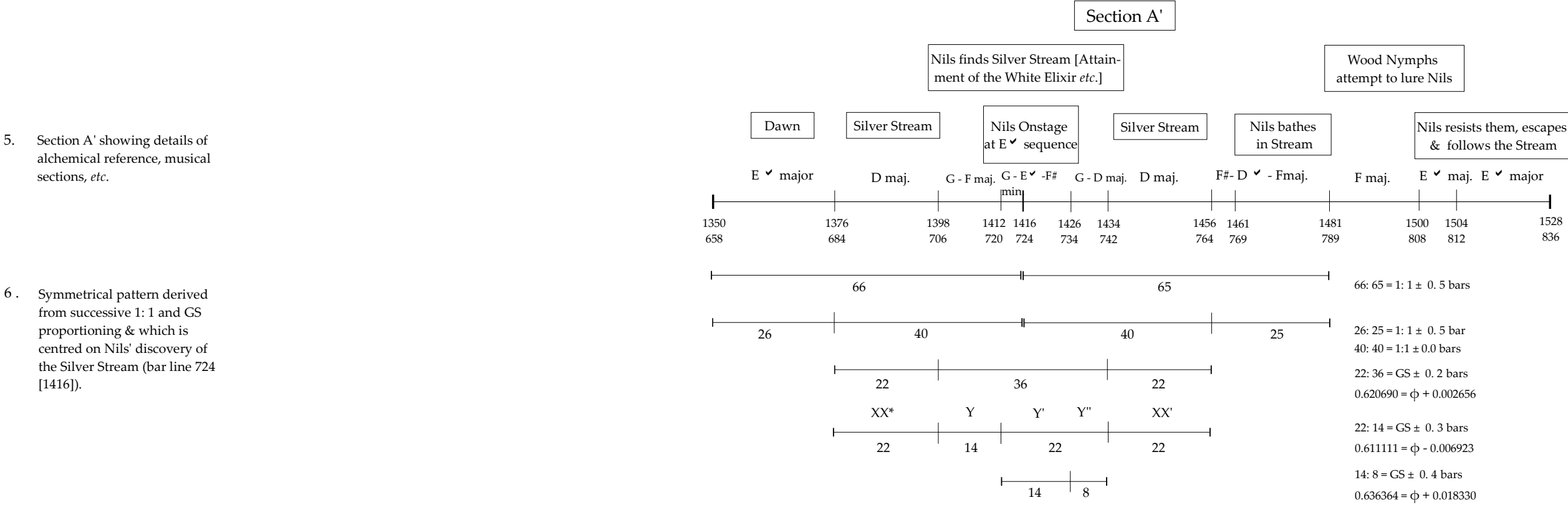
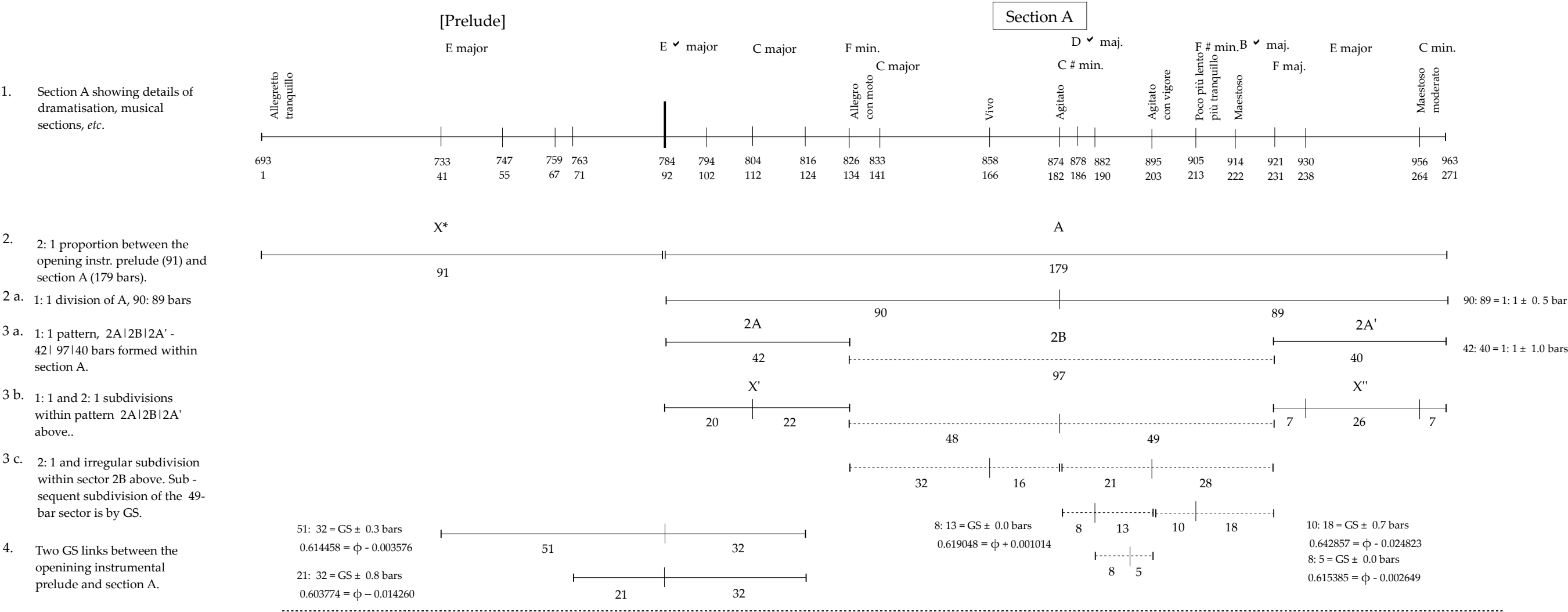
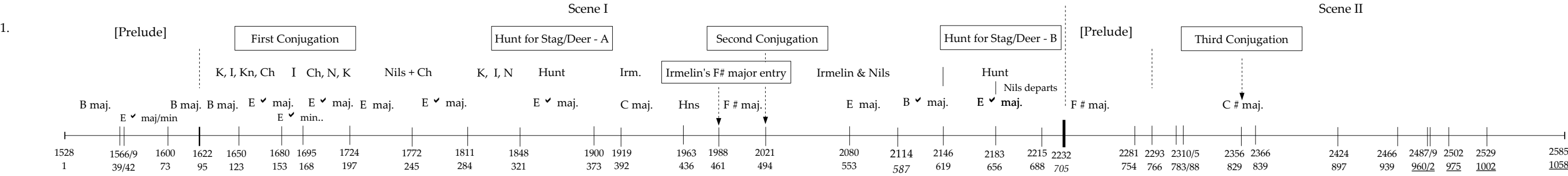
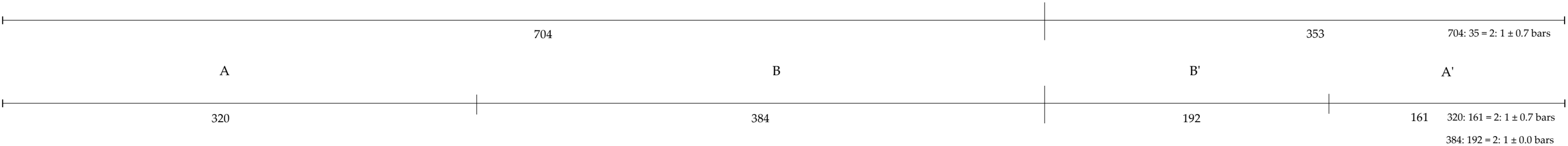


Figure 4.6 *Irmelin* (1890 – 2) Act II:

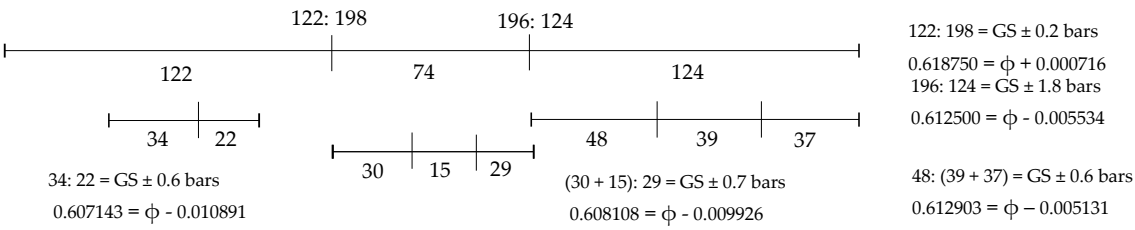
The opening prelude together with the A (*upper page*) and A' (*lower page*) sections of the overall pattern of Act II (A|B|A' – 179|387|178 bars) showing the construction of a symmetrical pattern within each of the two sections. Note that the A pattern largely employs 1: 1 and 2: 1 proportioning (using GS only at the fifth and sixth levels of the hierarchy), whilst the A' pattern avoids 2: 1 division, being based instead on 1: 1 and GS proportioning. * The terms X, Y, Z *etc.* denote contrasting musical content among sections, whilst X, X' and X'' *etc.* indicate similar or identical (matching) musical content.



2. Act III showing overall complete 2:1 pattern:

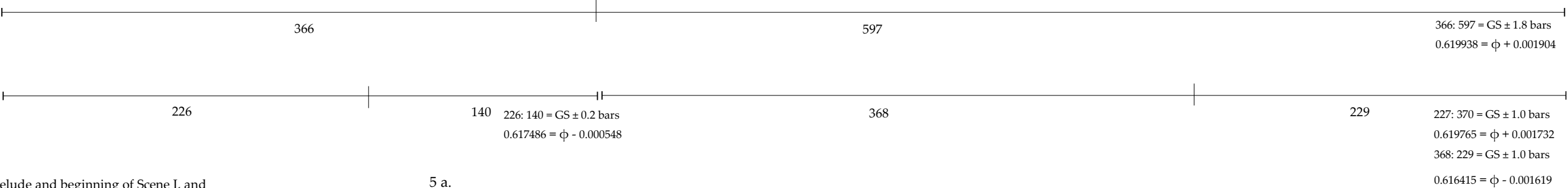


3. Partitioning of subsections within section A (above) by Type I GS subdivision:

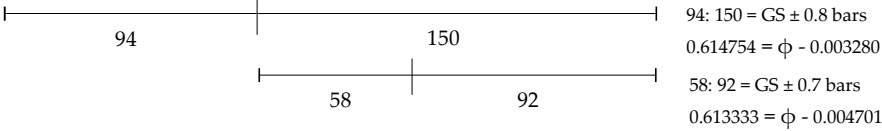


See the following Figure for further details of proportioning in Scene II.

4. Act III showing the primary (S: L) GS division at the entry into F# major. (bar line 461) and secondary GS division of the two resulting limbs:



5. GS links between the orchestral prelude and beginning of Scene I, and (5 a) GS type II hierarchy constructed around the second meeting (conjugation) of Nils and Irmelin:



5 a.

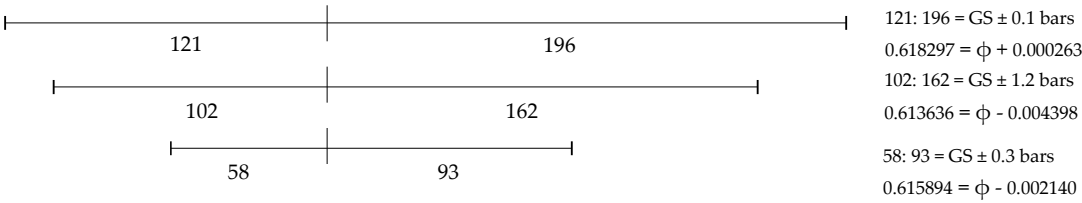


Figure 4.7 *Irmelin* (1890 –2) Act III:
1. Placement of selected musical, dramatic and alchemical events within Scenes I and II.
2 – 5. Main steps in the proportioning of Act III.

Scene 1

Scene 2

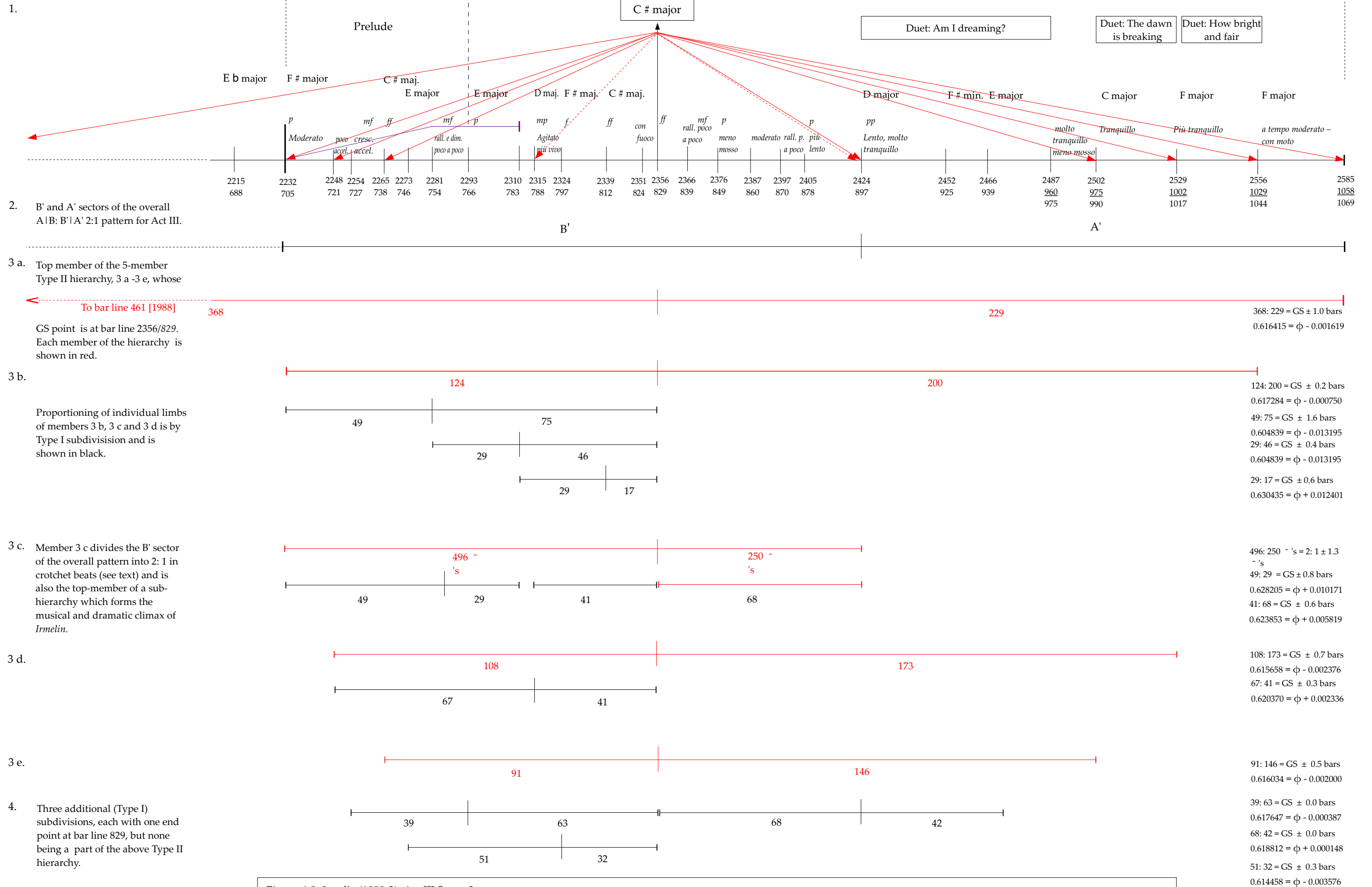


Figure 4.8 *Irmelin* (1890-2): Act III Scene 2:

1. Type II hierarchy built around bar line 829 [2356], *i.e.* The point representing the third and final conjugation in the alchemical allegory. The five GS members, and the single 2: 1 member of the hierarchy are shown as radiating outwards in red lines from bar line 829 [2356] in the diagram.
- 2 - 4. Further details of the individual proportions involved are given below the diagram in black or red, as detailed on the above left and right hand sides of the figure.

Scene 1

Scene 2

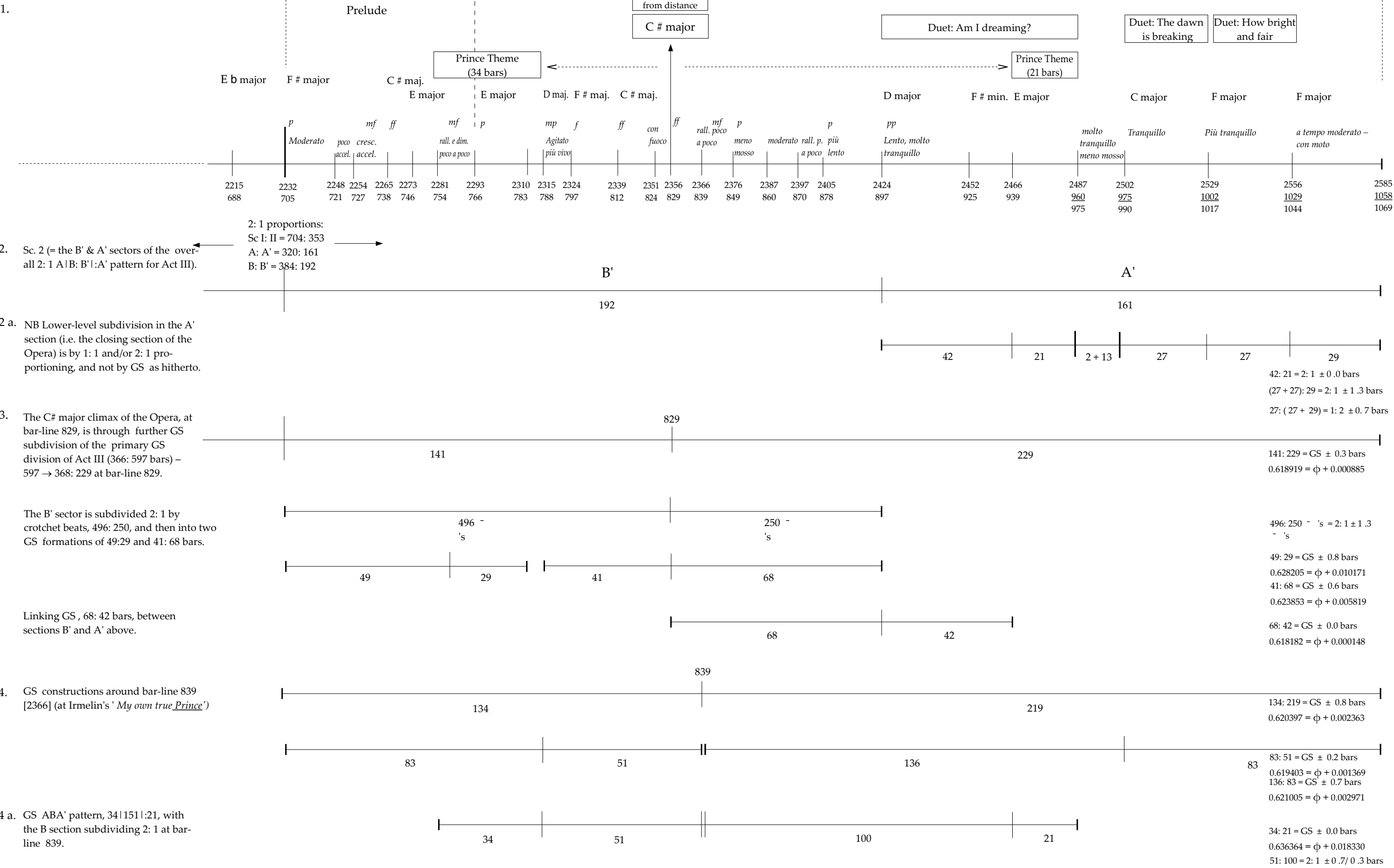


Figure 4.9 *Irmelin* (1890 – 2) Act III Scene 2:

1. Position of selected musical, dramatic and alchemical events within Scene 2.
- 2 – 3. Elaboration of the overall 2: 1 pattern and primary GS division of Act III within Scene 2.
4. GS contructions centered on bar-line 839 [2366].

Andante e molto tranquillo

1. Fl. 1, 2 Ob. 1, 2
I/1 bars 1 - 4
1 2 3 4 5

Maestoso quieto

2. Vl. 1, Vla.
I/1 bars 135 - 138

3. Irmelin
I/1 bars 175 - 179
the one I see in my dreams his eyes shine like stars

4. Vl. I
I/1 bars 134 - 137 [826 - 829]
[Nils: Bitterly do I rue the day, alas, so long ago]

5. Vl. II + VI. I 8va
Vla., Vc., Hn. II, Hn. I 8va
III/2 bars 754 - 757 [2281 - 2284]

6. Voice in the Air
I/1 bars 65 - 68
1 Ir - 2 me - 4 lin, fair 1 Ir - 2 me - lin!

Figure 4.10 *Irmelin*: thematic and motivic sources within the instrumental introduction to Act I: *Prince Motif*.

1. Act I/1: bars 1 – 4 – two sources (marked in red or black asterisks) of the 'Prince' theme (G#-D#-G#-F#-D#).
2. Act I/1: 'Same pitch' presentation of the motif occurring as the basis of the Maid's song, bars 135 – 148 (red asterisks).
3. Act I/1: Prince motif (first four notes) quoted in Irmelin's song e.g. bars 178 – 179.
4. Act II/1: 'Anguish' motif comprising the initial four notes of the motif + interpolated diminished 5th (bar 134 [826] →).
5. Act III/2: Prince motif with chromatic counterpoint as it occurs in the Act III/1-2 culminating GS construction.
6. Act I: The 'Voice in the Air' of Act I: *c.f.* the Prince motif (previous examples above).

Andante e molto tranquillo

1. Flute 1 Oboe 1 Flute 1
Clarinet 1 in A Clarinet 2 in A Clarinet 1 in A
I/1 bars 1 - 7

2. Irmelin
East of the sun----- and West of the moon-----
Vl. 1 + Fl. 3
I/6 bars 607 - 609

Allegro giocoso

3. Fl. 1. and Ob. 1, 2
III/1 bars 1 - 5 [1528 - 1532]

Maestoso Chorus - Sopranos

4. Wel-come Wel-come be - tro - thal day, soon_ will come the wed - ding day
III/1 bars 95 - 102 [1622 - 1629]

Vivo

5. Fl. 1, 2
III/1 bars 197 - 199 [1724 - 1726]

Piu lento

6. Vl. I unis
III/1 bars 514 - 516 [2041 - 2043]

7. **[con fuoco]**
Vl. 1, col Vl. 2 8vb
III/2 bars 829 - 840 [2356 - 2367]

Figure: 4.11 *Irmelin* thematic and motivic sources within the instrumental introduction to Act I: - (bars 1 – 7): *Interval of a fourth descending in sequential steps of a minor third*. The sequence B-F#, G#-D# derives from reading between the flute and clarinet parts, but where the notated pitch in the clarinets is 'read' as being the actual sounding pitch (example 1). The introduction of an extended form of the motif occurs as a 'same pitch' transformation in Act III/1, whilst this same transformation is presented in its most elaborate form at the opera's climax (Act III/2, example 7). The sequence is referred to less conspicuously at various points in Acts I and III (examples 2 – 5 above).

1 a

I/1: bars 1 – 4

1 b

I/1: c.f. bars 1 – 4 (notated in E flat minor)

1 c

I/1: bars 120 – 124

2 a

I/1 bars 1 - 4

2 b

II/1 bars 194 - 195 [886 - 887]

3 a

I/1: bars 1 – 5

3 b

III/1: bars 42 – 3 [1569-70]

Figure 4 .12: *Irmelin*: miscellaneous thematic and motivic sources derived from the instrumental introduction to Act I:

1. Act I/1: Theme at bars 120 – 124 (1 c), showing source from bars 1 – 4 of the introduction (1 a, 1 b).
2. Act II/1: Arabesque motif, (2 b), first introduced bars 194 – 195, and at same notated pitch as its source in the Act I introduction (2 a).
3. Act III/1 introduction: theme at bars 42 – 43 ; c.f. bars 1 – 5 of the Act I introduction

Prelude – Act I

Act I scene 1

1. Primary 2:1 division:

2. GS division of 31 bar limb:

3 . Approximate Complete GS pattern::

4. Bars 17 – 21 showing completion of theme (over bars 20 - 21) following the GS point at bar line 20.
Bars 19 – 21 outline both (a) Nils' and (b) Irmelin's main motifs (red and violet asterisks):

4 a.

II/1: bars 17-19 [709 -711]

4 b.

I/1: bars 32 – 34, c.f. bars 43 – 46.

[6: 4 = GS ± 0.18 bars
0.600000 = ϕ - 0.018034]
[13: 23 = GS ± 0.75 bars
0.638889 = ϕ + 0.020825]

Figure 4.13 *Irmelin*: thematic sources within the instrumental introduction to Act I: bars 19 – 21
Motifs associated with Nils and Irmelin (examples 4 a and 4 b) originate from bars 19 – 21 of the introduction.

1.

Ob. 1. 2

p *dolciss.* I/1 bars 44 - 46
2.

VII

I/1 bar 53
3.

Moderato VII

I/1 bars 174 - 179
4.

Maestoso Chorus - Sopranos

Wel-come Wel-come be - tro - thal day, soon_ will come the wed - ding day

III/1 bars 95 - 102 [1622-1629]
5.

Moderato

Clar. 1. 2 in A

III/2 bars 705 - 718 [2232 - 2245]

Fl. 1. 2

Ob. 1. 2

Figure 4.14 *Irmelin*: Thematic transformations of the 'Irmelin Theme'

1. 'Irmelin theme' (I/1 bars 44 – 46 above, *cf.* bars 32 – 34 with a D \flat in bar 33 for D \sharp in bar 45):
2. Adumbration employing the first five and last notes of the theme only.
3. From Irmelin's Act I/1 F major song *I am waiting for him*.
4. From the opening chorus of guests at Irmelin's wedding betrothal banquet (Act III/1).
5. From the Prelude to Act III/2. (notes from descending limb of the bars I/1 46 – 47 are marked in blue, those spanning the complete theme are marked in red)

1.



2.



3.



4.



Figure 4.15 *Irmelin* :

1. Act III Scene 2: Scheme of the 68-bar 'descent' – in sequences of falling fourths – from the GS point at bar line 829 [2356].
2. Act I Scenes 1 – 2: 'Saturn' theme.
3. Act II Scene 5: 'Silver Stream' music – (outer sections).
4. Act II Scene 5: 'Silver Stream' music – (central section).

1.

1.

2.

Poco più vivo
In the distance - four horns [sounding pitch]



1/5 bars 545 - 554

3.

The musical score is for Act II, Scene I, featuring a Chorus of young men and young women heard in the distance. The score is written for a full orchestra and vocal soloists. The tempo starts at *allargando*, changes to *poco rit.*, and then to *Allegretto*. The key signature has one flat (B-flat major or D minor). The time signature is 12/8. The score includes parts for Flute 1 & 2, Clarinet 1 & 2, Bassoon 1, 2 & 3, Trumpet 1 & 2, Horns (labeled IRMELIN), Soprano, Contralto, Tenor, Basses, Violin I & II, Viola/Vcello, and Double Bass. The lyrics are: "A way far away to the woods let us stray and dance and A way to the woods let us stray Tra la la la tra la la".

Figure 4.16 *Irmelin*: Act I section A':

1. GS point at bar line 523, illustrating the 'F# major entry'.
2. GS point at bar line 545 at return of woodwind figuration of bar 523 *et seq* and entry of the distant hunting horns.
3. Overall 2: 1 point (after bar line 622) marking the entry of the distant chorus.

1.

poco rit. Con molto espressione

Fl. 1. 2 461/1988

Ob. 1. 2

C. Ang.

Cl. 1

Bsn. 1. 2

IRME LIN

VI. I VI. II

Vc. Db.

poco rit. Con molto espressione

Is this love that has come at last

III/1 bars 457 – 465 [1984 -1992]

1

2.

Hn. 1, 2 Bsn 1,2

VI. I. VI. II 8vb

Bass Cl, Bsn 3, Vc Db

III/2 bars 797 - 802 [2324 - 2329]

3.

Fl. 1. 2, Picc., Ob. 1. 2, Cl. 1. 2 in A

Bass Cl, Bsn 1-3, Tbn 1. 2, Tuba

VI. I, VI. II, Vla

accelerando con fuoco

cresc. molto

Figure 4.17 Irmelin Act III :

1. GS point at bar line 461 [1988] illustrating Irmelin's 'F# major entry' and indicating her 'heightened state or mood' etc.
2. Entry of the 'Mars' theme at Scene 2 bar line 797 [2324] – (bass clarinet, bassoons and double bases).
3. Final approach to the GS point at bar line 829 [2356], showing also the initial two bars of the 'descent' to bar line 897 [2424].

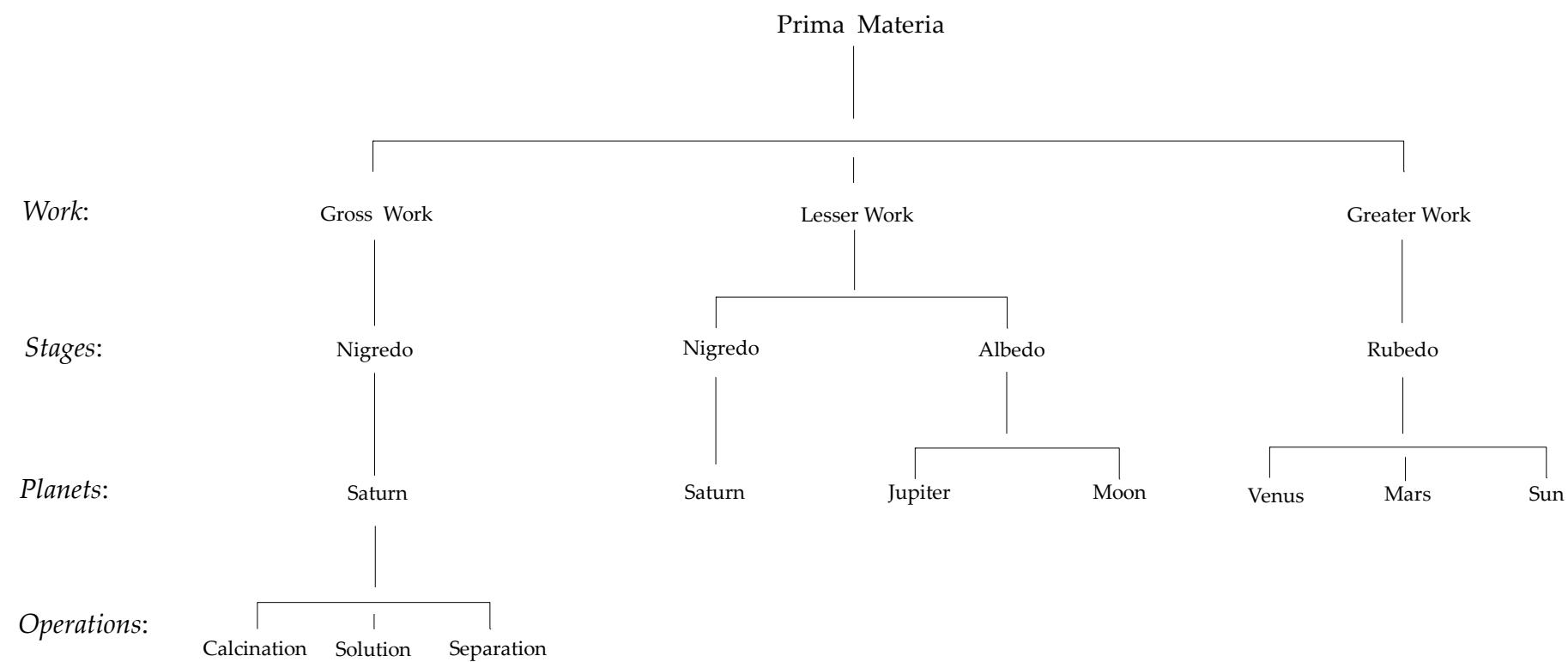


Figure 4.18: A simplified scheme of the various alchemical stages and procedures as these are reflected in Delius' operas *Irmelin* (1890 – 1892) and *The Magic Fountain* (c. 1893-1895). The scheme demonstrates the hierarchical nature and the unfolding (both downwards and horizontally) of progress towards attainment of the 'red elixir' or 'philosopher's stone' which takes place under Mars and the Sun in the *Rubedo* stage. The *Gross Work* with its *Operations* (Calcination *etc.*) only occurs in the *Magic Fountain* (Act I), whilst in *Irmelin* the alchemical scheme comprises only the *Lesser* and *Greater Work*, the *Gross Work* being omitted.



Plate 4.1: Johann Conrad Barchusen: *Elementa Chymiae* (1718) - plate 9 - showing Sol and Luna linked above the mercurial stream, with the sun behind. The plate was reprinted in Albert Poisson's *Cinq Traités d'Alchimie* of 1890.

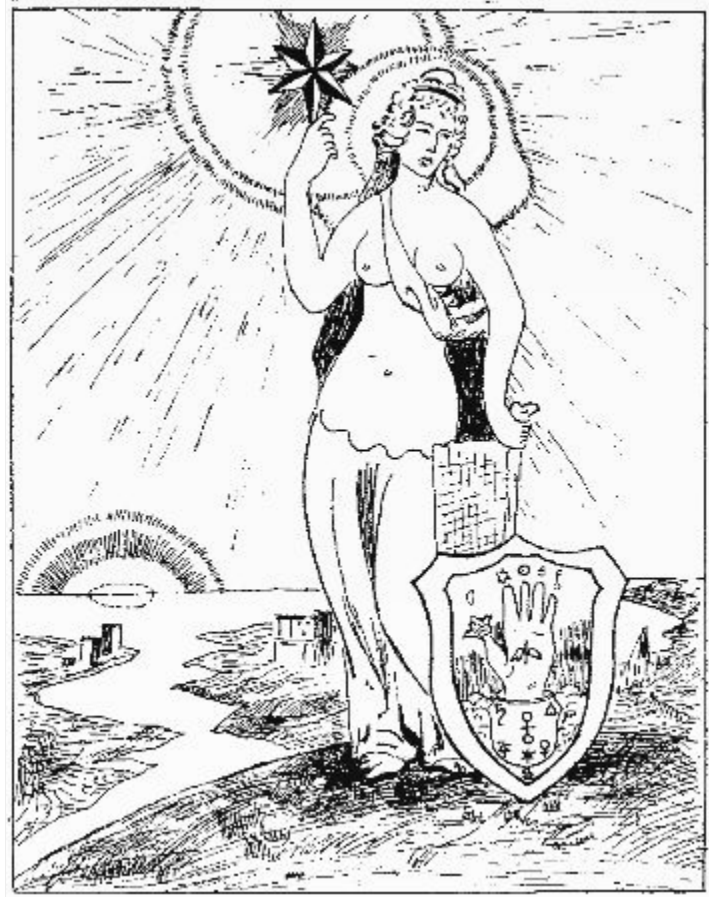


Plate 4.2: From Henri du Lintaut: *l'Aurore* (late 17th century), showing the sunrise, the morning star (Venus), and the Roman Goddess, Aurora, as symbols of the Albedo phase. The 'silver (mercurial) stream' flowing into the mercurial sea is also illustrated.



Plate 4.3: Salomon Trismosin: *Splendor Solis* (1582) - plate 21, (Harley manuscript) – showing women washing linen by the 'silver (mercurial) stream' & signifying a transition from the black or grey colour of Saturn and Jupiter in the alchemical *Opus* to the pure white of the Albedo Luna phase.

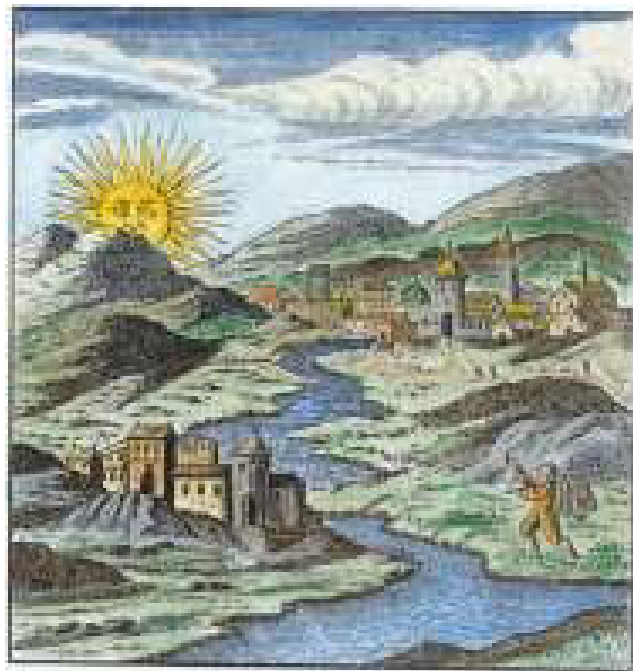


Plate 4.4 Salomon Trismosin: cf. plate 22 of *Splendor Solis* as published in *Aureum vellus, oder Guldin Schatz* Rorschach 1598 or 1604, – showing sunrise (or sunset), and the mercurial river. The picture depicts a late stage in the alchemical work.

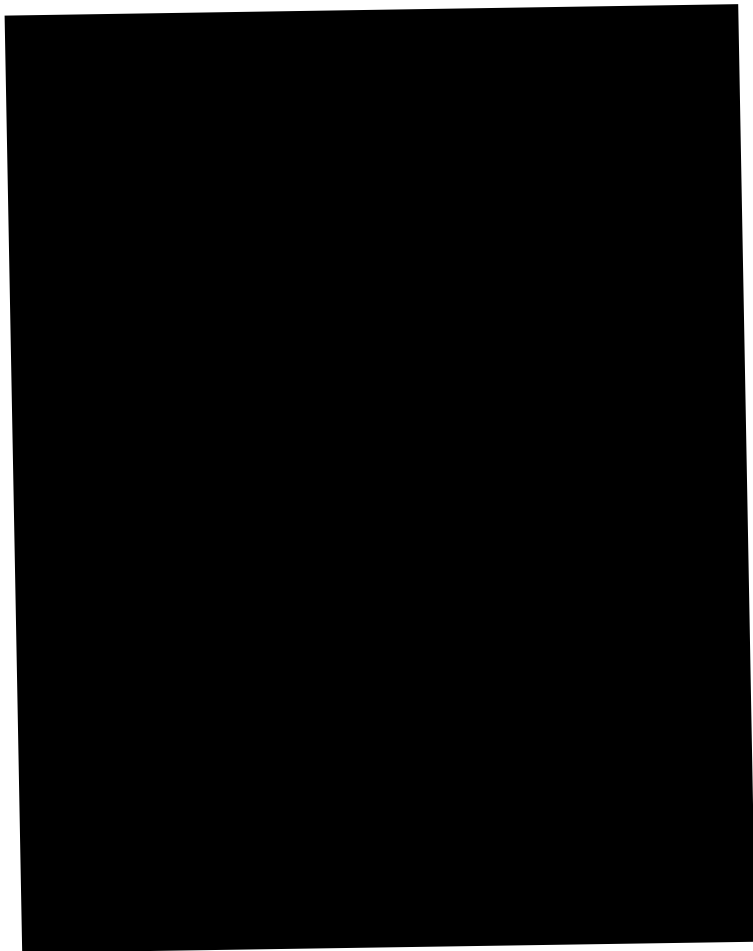


Plate 4. 5 (left) *Rosarium philosophorum* (anon. 16th century), Plate 8 showing the washing of the dying rebus at the start of the Albedo (and following on from the initial conjugation in the Nigredo phase).

Plate 4. 6 (right) illustrates the quickening of the rebus through the return of the soul. In both *Irmelin* and the *Magic Fountain* Delius opts for the alternative of the direct *sublimation* of mists or vapours rather than a condensation into rain or dew as indicated in Plate 8. The Latin inscription at the top of Plate 9 reads : *The Soul's Jubilee, or the dawn/sunrise [ortus] or the sublimation.*



Plate 4.7: From: Benedictus Figulus *Thesaurinella olympica* (1682), showing Mercurius together with Sol and Luna, (as King and Queen). One of Mercurius' main functions in the Opus is the bringing together of Sol and Luna and his presiding over the process of conjugation.



Plate 4.8: Johann Daniel Mylius: *Philosophia reformata* (1622): Plate 7 illustrating two opposing elements, as Sol and Luna, and their reconciliation through the mediation of Mercurius.



Plate 4.9: Johann Daniel Mylius: *Philosophia reformata* (1622): Plate 19 showing the Philosophers Stone represented as the 'Philosophical Child' born of Sol and Luna (as King and Queen). This event is paralleled in *Irmelin*, in Act III Scene 2, following on from bar line 829 [2356].

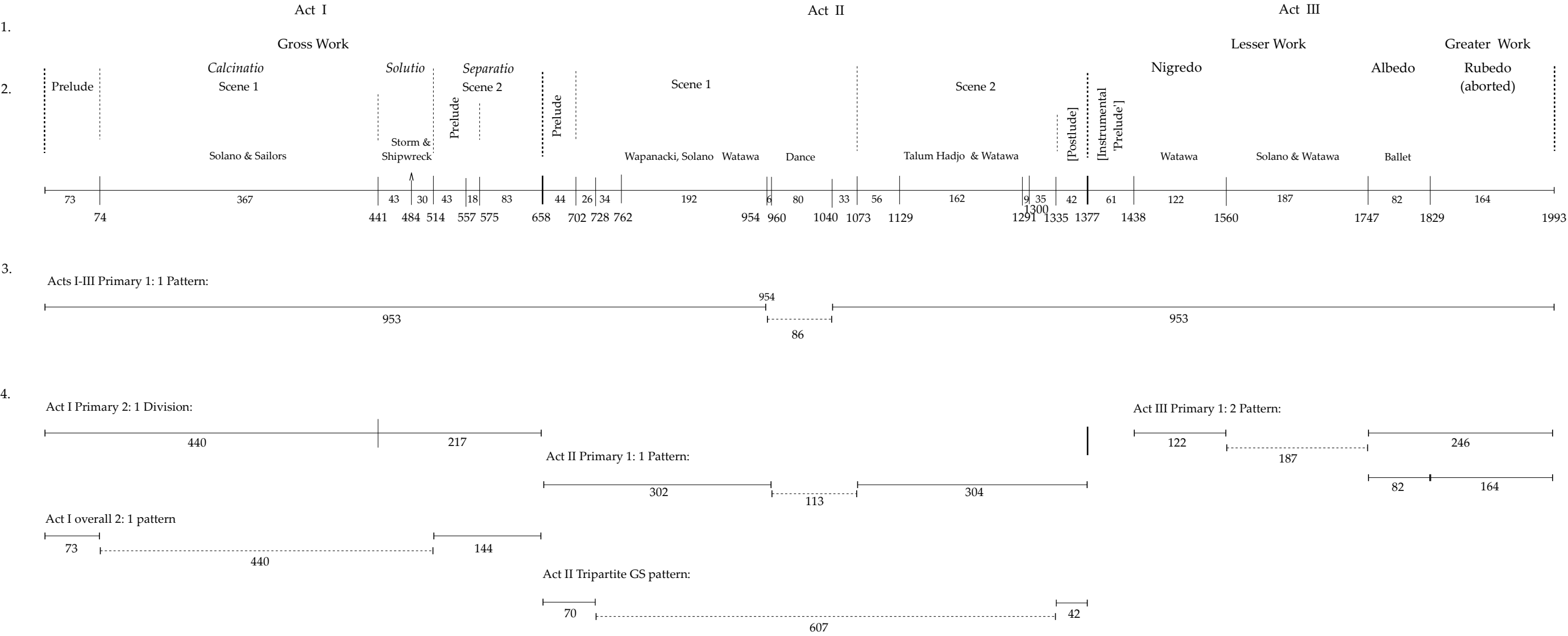


Figure 5.1 *The Magic Fountain* (c. 1894 – 95) Acts I – III:

- Processes within the alchemists' Work.
- Axis indicating the main sections and selected musical or dramatic events occurring within Acts I – III.
- Primary 1: 1 pattern spanning Acts I – III. The central 'B' section constitutes the 'Dance of the Indian Warriors' of Act II.
- Primary divisions and patterns within individual acts. For more detailed information see also Figures 5.2 – 5.4.

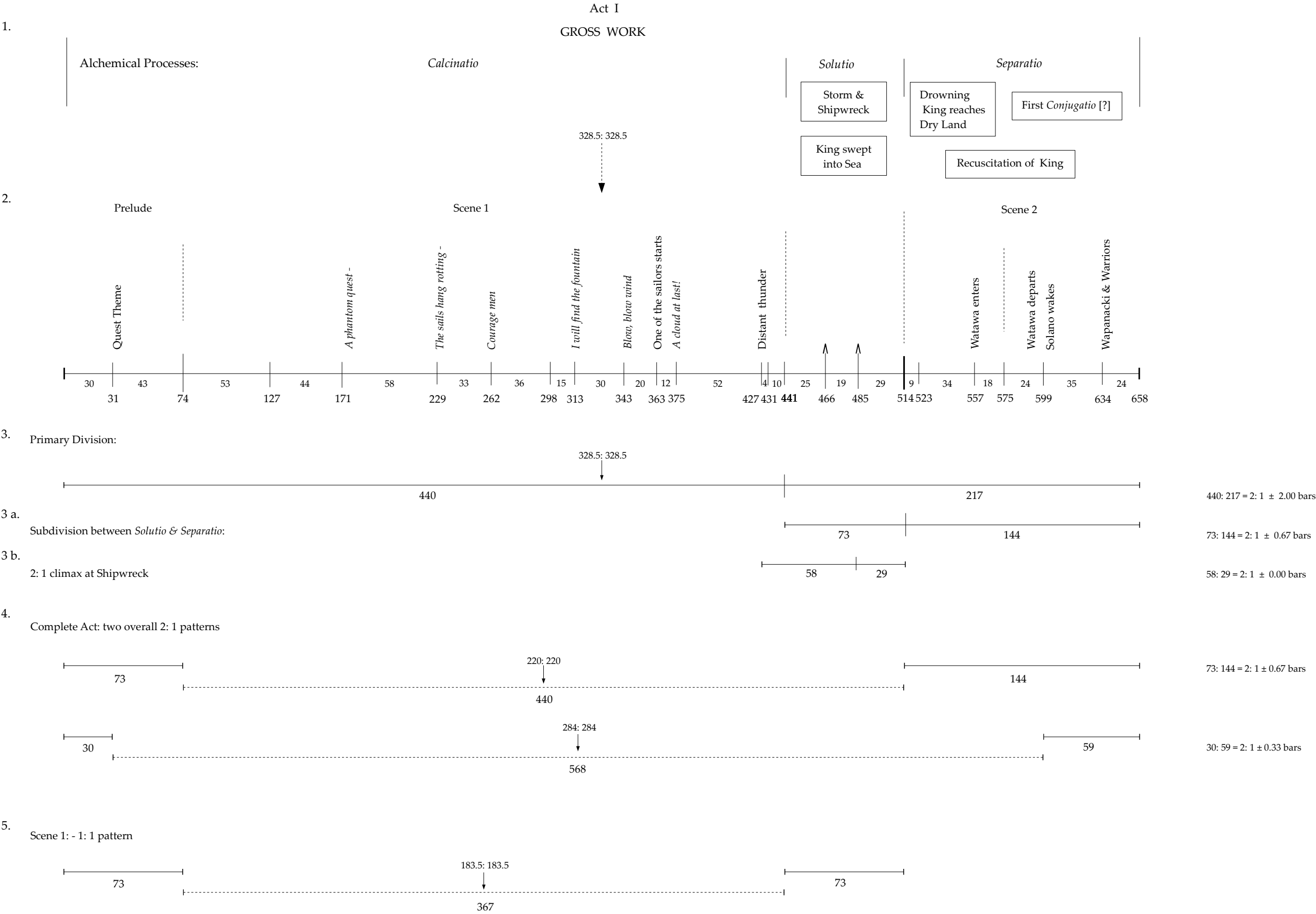


Figure 5.2 *The Magic Fountain* (c. 1894 – 95) Act I:

- Processes within the alchemists' *Gross Work*. Refer to text for details of boxed topics.
- Axis indicating the main sections and selected musical or dramatic events occurring within Act I.
- Primary 2: 1 division of Act I with subdivision within scene 2 (3 a). Also showing the 2:1 climax at the point of shipwreck (3 b).
- Two overall primary 2: 1 patterns spanning Act I.
- Scene 1 indicating a 1: 1 pattern

(Downward pointing arrows mark the overall mid-point for Act I (2), and mid-points of the 'B' sections of patterns 4 and 5).

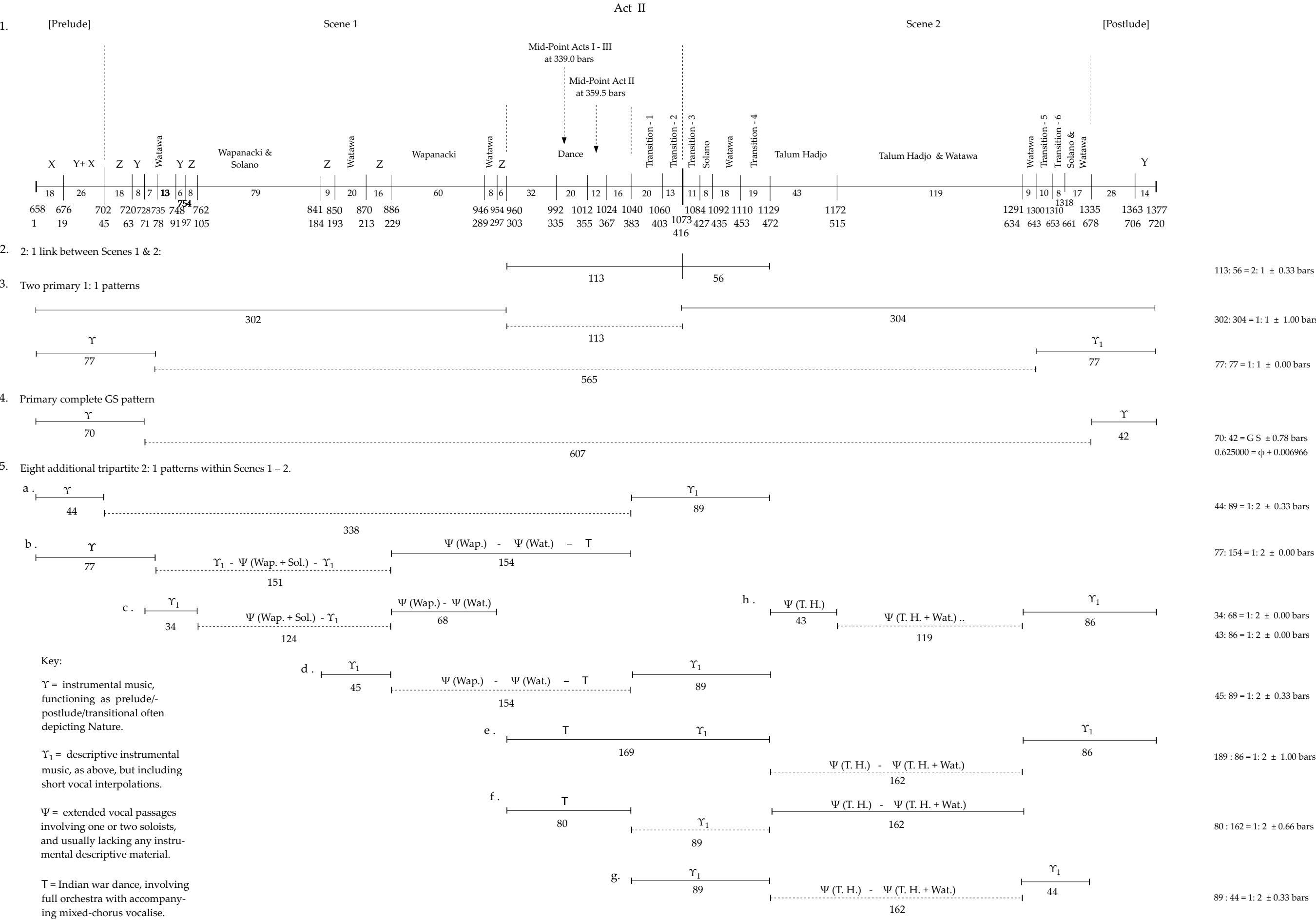


Figure 5.3 *The Magic Fountain* (c. 1894-95) Act II:

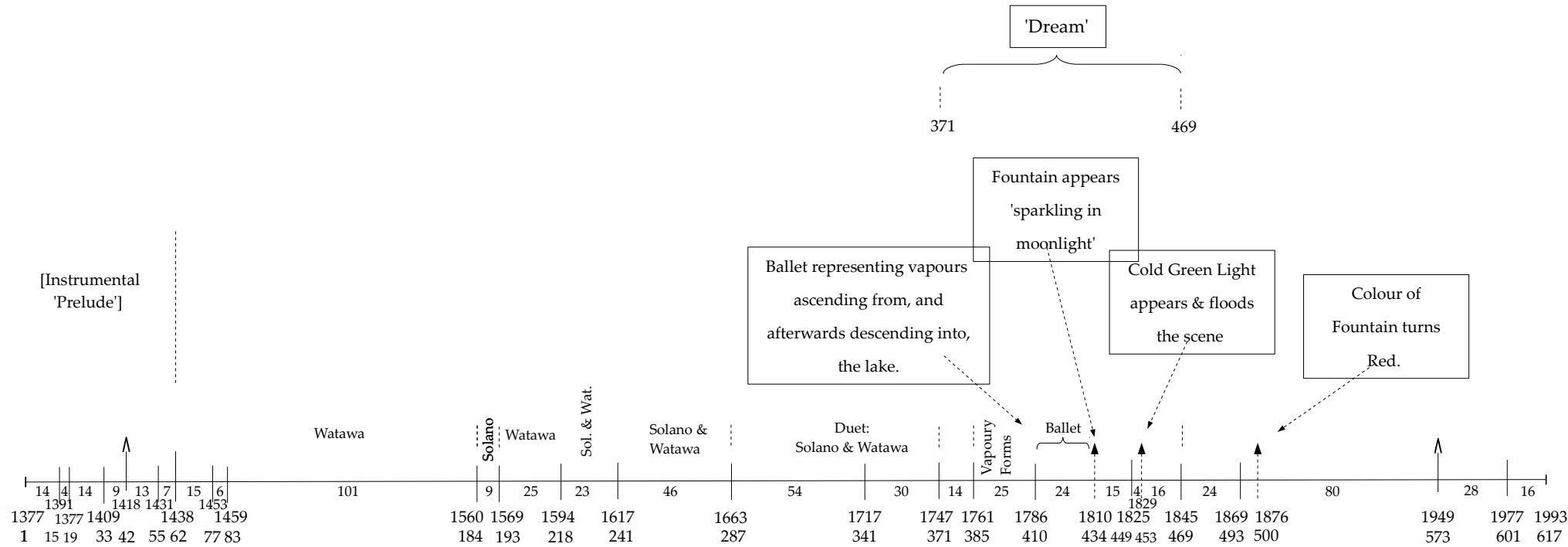
1. Axis indicating the main sections and events. X, Y and Z denote differing musical content in instrumental passages.
2. 2: 1 division linking scenes 1 and 2.
3. Two overall primary 1: 1 patterns spanning Act II.
4. Primary GS pattern spanning Act II.
5. Eight subsidiary ABA' 2: 1 patterns occurring within Act II.

Act III

1.

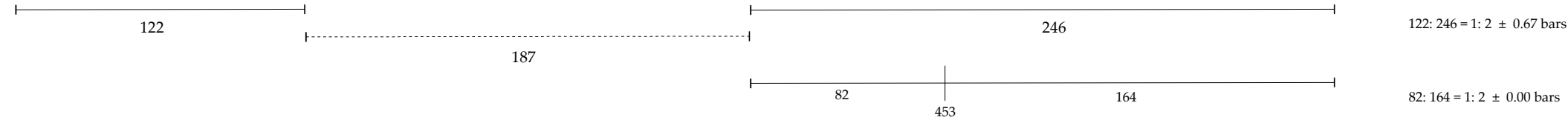


2.



3.

Primary 1: 2 pattern:



4.

2: 1 link between 'excluded prelude' and subsequent section.

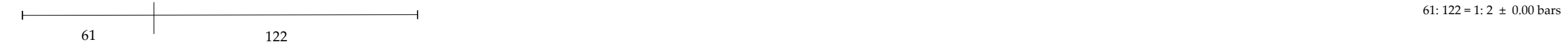


Figure 5.4 *The Magic Fountain* (c. 1894-95) Act III:

1. Stages of the alchemical *Opus* occurring in Act III (continued from Act I, *q.v.*)
2. Axis indicating the main musical sections and also selected musical and dramatic events, including alchemical symbols.
3. Primary 1: 2 pattern spanning Act III, but excluding the opening instrumental prelude.
4. 1: 2 division linking the instrumental prelude and the opening monologue (Watawa).

Sea Drift

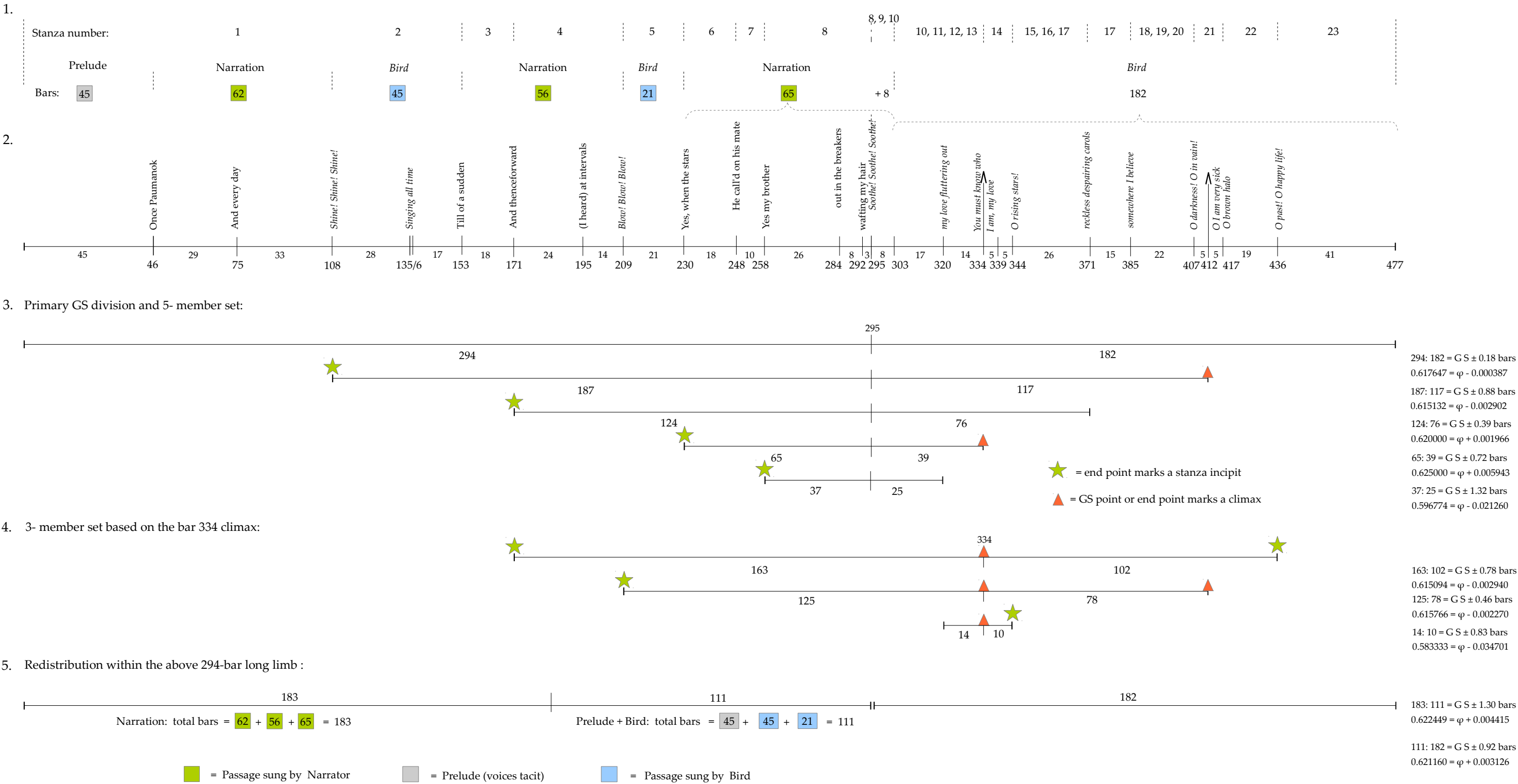


Figure 7.1 *Sea Drift* - for baritone solo, mixed chorus and large orchestra – (1903 or 1904):

1. Positioning of text stanzas*, and their partitioning according to whether spoken by the narrator or by the sea bird in the original text..
2. Axis in *bars* indicating the two main climaxes, and also the stanza incipits together with miscellaneous additional lines of the poetical text .
3. Primary GS division, with the L: S GS point placed where the bird begins his extended final soliloquy. The five-member set marks the incipits of stanzas 2, 4, 6, and 8.
4. Three-member set with GS point immediately before the climax in bar 334. End points mark out stanzas 4, 5, 15 and 23, and also the bar 412 climax.
5. Initial Type I GS division followed by redistribution within the long limb of the primary division.

* For reference purposes, 'stanzas' and other sections of the text have been here numbered 1 – 23 (see also Figure 7.2.)

Sea Drift

1.
Once Paumanok,
When the lilac-scent was in the air and Fifth-month grass was growing,
Up this seashore in some briers,
Two feather'd guests from Alabama, two together,
And their nest, and four light-green eggs spotted with brown,
And every day the he-bird to and fro near at hand,
every day the she-bird crouch'd on her nest, silent, with bright eyes,
And every day I, a curious boy, never too close, never disturbing them,
Cautiously peering, absorbing, translating.
2.
Shine! shine! shine!
Pour down your warmth, great sun!
While we bask, we two together.
Two together!
Winds blow south, or winds blow north,
Day come white, or night come black,
Home, or rivers and mountains from home,
Singing all time, minding no time,
While we two keep together.
3.
Till of a sudden,
May-be kill'd, unknown to her mate,
One forenoon the she-bird crouch'd not on the nest,
Nor return'd that afternoon, nor the next,
Nor ever appear'd again.
4.
And thenceforward all summer in the sound of the sea,
And at night under the full of the moon in calmer weather,
Over the hoarse surging of the sea,
Or flitting from brier to brier by day,
I saw, I heard at intervals the remaining one, the he-bird,
The solitary guest from Alabama.
5.
Blow! blow! blow!
Blow up sea-winds along Paumanok's shore;
I wait and I wait till you blow my mate to me.
6.
Yes, when the stars glisten'd,
All night long on he prong of a moss-scallop'd stake,
Down almost amid the slapping waves,
Sat the lone singer wonderful causing tears.
7.
He call'd on his mate,
He pour'd forth the meanings which I of all men know.

8.
Yes my brother I know,
The rest might not, but I have treasur'd every note,
For more than once dimly down to the beach gliding,
Silent, avoiding the moonbeams, blending myself with the shadows,
Recalling now the obscure shapes, the echoes, the sounds and sights
after their sorts,
The white arms out in the breakers, tirelessly tossing,
I, with bare feet, a child, the wind wafting my hair,
Listen'd long and long.
9.
Listen'd to keep, to sing, now translating the notes,
Following you my brother.
10.
Soothe! soothe! soothe!
Close on its wave soothes the wave behind,
And again another behind embracing and lapping, every one close,
But my love soothes not me, not me.
11.
Low hangs the moon, it rose late,
It is lagging—O I think it is heavy with love, with love,
12.
O madly the sea pushes upon the land,
With love, with love.
13.
O night! do I not see my love fluttering out among the breakers?
What is that little black thing I see there in the white?
14.
Loud! loud! Loud!
Loud I call to you, my love!
High and clear I shoot my voice over the waves,
Surely you must know who is here, is here,
You must know who I am, my love.
15.
O rising stars!
Perhaps the one I want so much will rise, will rise with some of you.
16.
O throat! O trembling throat!
Sound clearer through the atmosphere!
Pierce the woods, the earth,
Somewhere listening to catch you must be the one I want.
17.
Shake out carols!
Solitary here, the night's carols!
Carols of lonesome love! death's carols!
Carols under that lagging, yellow, waning moon!
O under that moon where she droops almost down into the sea!
O reckless despairing carols.

18.
But soft! sink low!
Soft! let me just murmur,
And do you wait a moment you husky-voic'd sea,
For somewhere I believe I heard my mate responding to me,
So faint, I must be still, be still to listen,
But not altogether still, for then she might not come immediately to me.
19.
Hither my love!
Here I am! here!
With this just-sustain'd note I announce myself to you,
This gentle call is for you my love, for you.
20.
Do not be decoy'd elsewhere,
That is the whistle of the wind, it is not my voice,
That is the fluttering, the fluttering of the spray,
Those are the shadows of leaves.
21.
O darkness! O in vain!
O I am very sick and sorrowful.
22.
O brown halo in the sky near the moon, drooping upon the sea!
O troubled reflection in the sea!
O throat! O throbbing heart!
And I singing uselessly, uselessly all the night.
23.
O past! O happy life! O songs of joy!
In the air, in the woods, over fields,
Loved! loved! loved! loved! loved!
But my mate no more, no more with me!
We two together no more.

Figure 7.2 *Sea Drift* - for baritone solo, mixed chorus and large orchestra – (1903 or 1904):
Text of Delius' *Sea Drift* with the layout, disposition of lines and italicization according to the original passage in Whitman's *Leaves of Grass*. As well as some minor textual alterations, Delius has omitted 7 lines from Whitman's poem. purposes, 'stanzas' and other sections of the text have been here numbered 1 – 23.

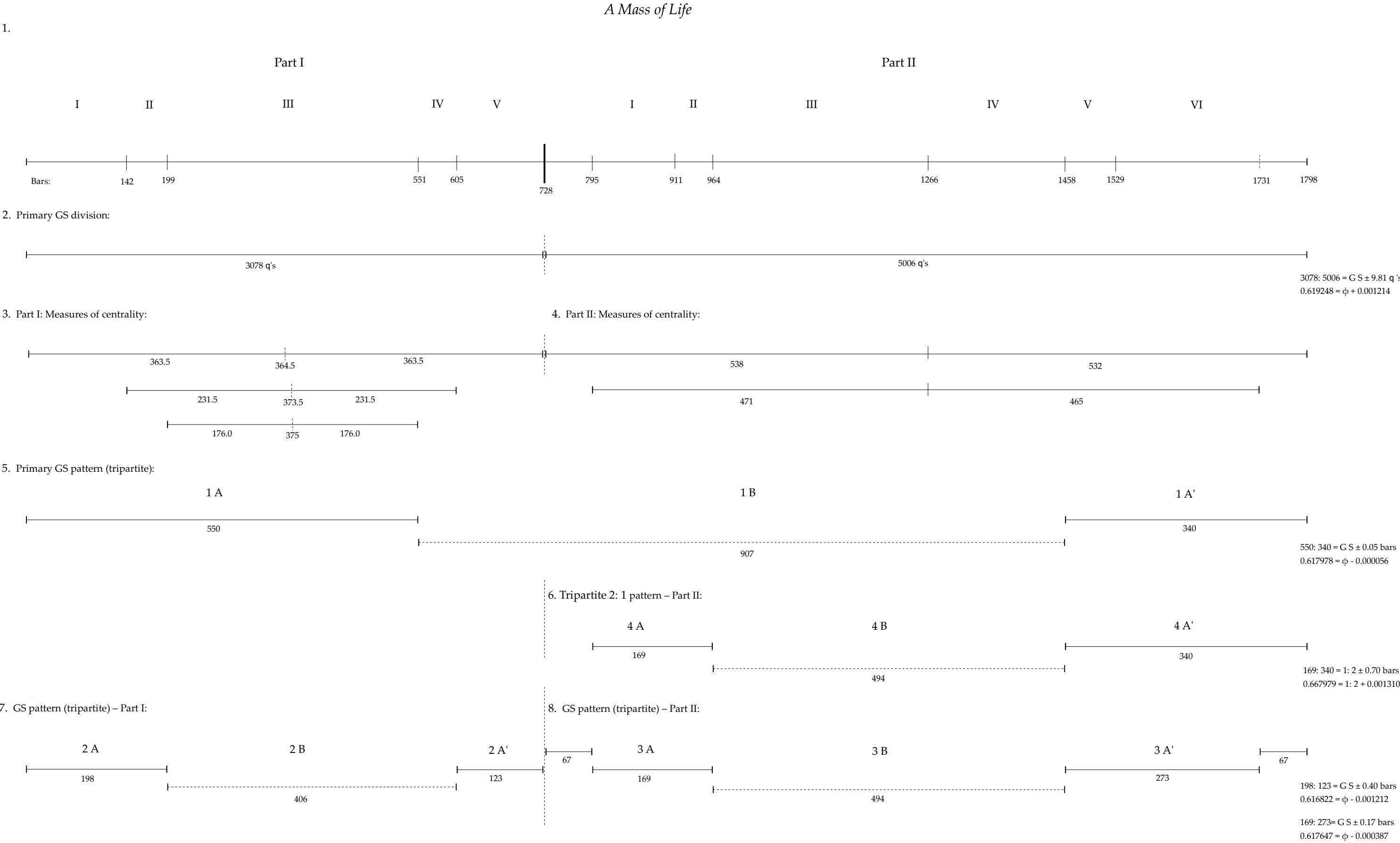


Figure 7.3 *A Mass of Life* (1904 – 1905):

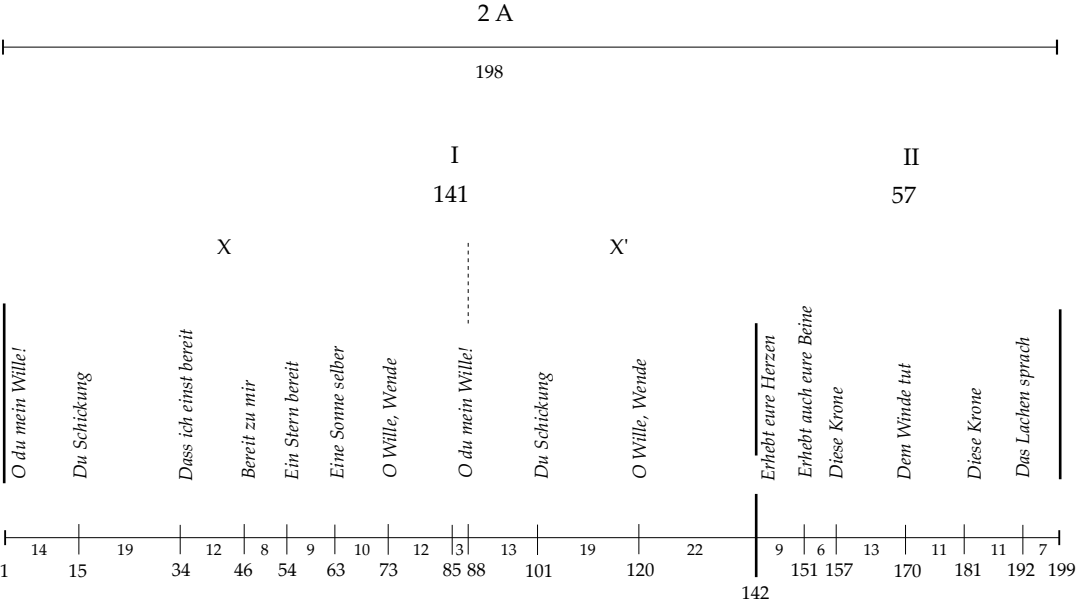
1. Axis in bars showing the layout of parts I and II and of the movements within each part. The opening movement of part II – 'On the Mountains'/*Auf den Bergen* – is unnumbered.

2. Primary GS division (in crotchet beats) with GS point at the juncture of Parts I and II. 3. Centring of part I movement III relative to remaining part I movements. 4. Centring of part II around the juncture of movements III and IV.

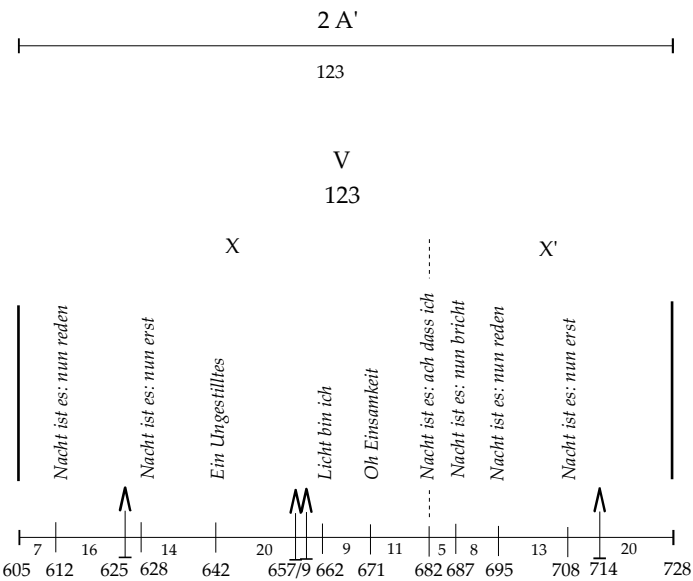
5. Primary overall GS Pattern 6. Tripartite 2: 1 pattern Part II 7. GS pattern Part I. 8. GS pattern Part II – the pattern is enclosed in a 67 bar 'frame'. Bar line 1731 marks the beginning of the final section of part II/VI *Aller Lust will aller Dinge Ewigkeit*.

A Mass of Life – Part I
Sections 2A & 2A' of Pattern 2
(= Movements I+ II and Movement V)

1.

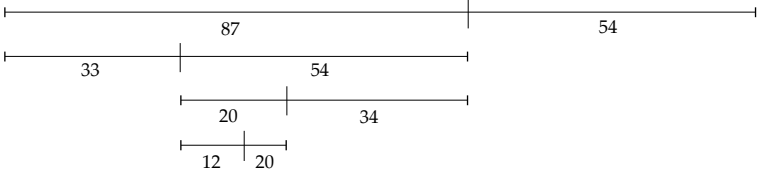


4.



198: 123 = G S \pm 0.40 bars
0.616822 = φ - 0.001212

2. Primary GS division:



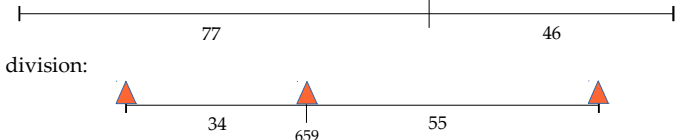
87: 54 = G S \pm 0.14 bars
0.617021 = φ - 0.001013
33: 54 = G S \pm 0.23 bars
0.620690 = φ + 0.002656
20: 34 = G S \pm 0.63 bars
0.629630 = φ + 0.011597
12: 20 = G S \pm 0.22 bars
0.625000 = φ + 0.006966

3. Primary Tripartite GS Pattern:



14: 22 = G S \pm 0.25 bars
0.611111 = φ - 0.006923

5. Primary GS division:



77: 46 = G S \pm 0.98 bars
0.626016 = φ + 0.007982

6. GS division:



34: 55 = G S \pm 0.01 bars
0.617978 = φ - 0.000056

Figure 7.4 *A Mass of Life* (1904 – 1905) Part I:

- & 4. Axes (in bars) of sections 2A and 2A' (respectively movements I + II and movement V of pattern 2A || 2B ||: 2A').
- & 5. Primary GS divisions of movements I and V. In each case the GS point is at the L: S juncture of the movement with both marking the beginning of a textual and musical reprise.
- Movement I: primary tripartite pattern 6. Movement V: GS division linking three entries of T₅ (for T₅ see Figure 7.10 example 1).

No subdivision procedures were noted in movement II.

A Mass of Life – Part I
Section 2B of Pattern 2 (= Movements III – IV)

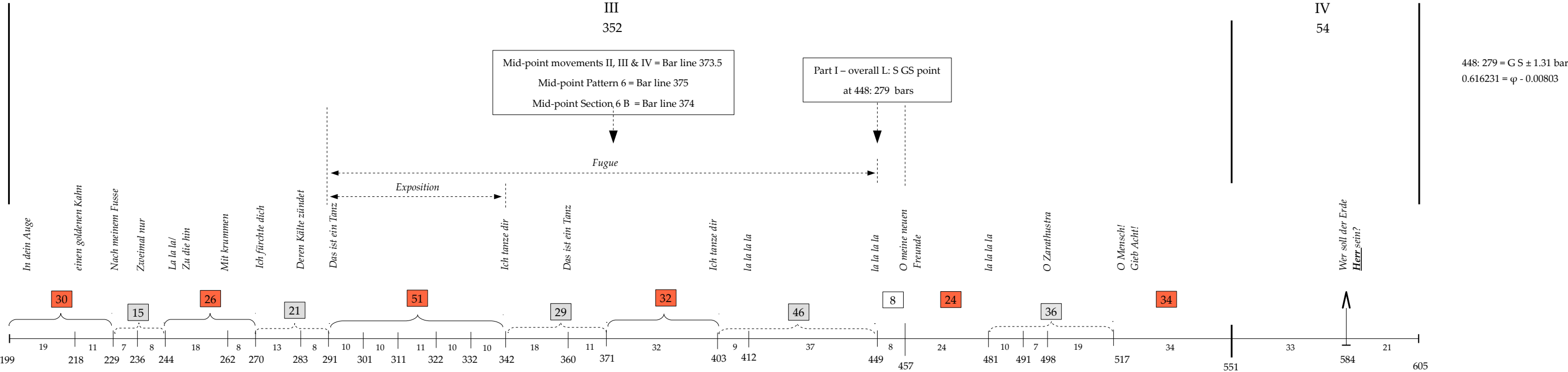
1. Primary Tripartite GS Pattern:



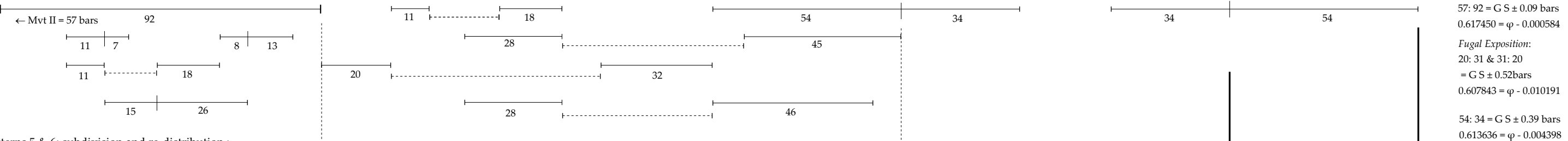
2. Primary 1: 1 Pattern:



3.



5. Patterns 5 & 6: GS links and remote proportions :



4. Patterns 5 & 6: subdivision and re-distribution :

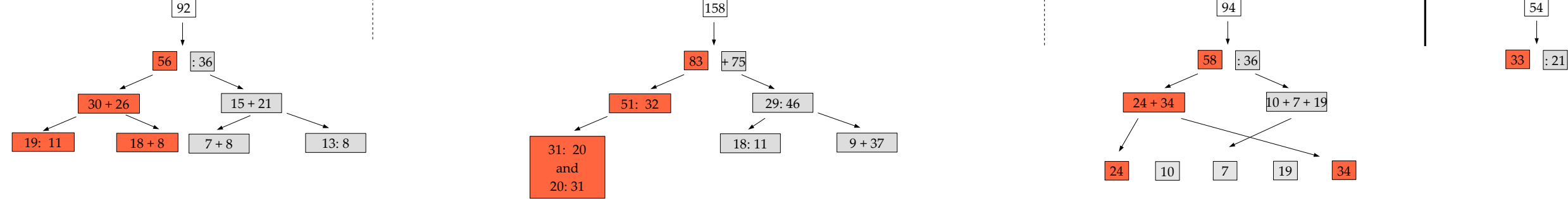


Figure 7.5 A Mass of Life (1904 – 1905):

1. Primary GS pattern (pattern no 5). This pattern is constructed upon (and confined within) section 2B of pattern 2 (see Figure 7.3 no 7).
2. Primary 1: 1 pattern (pattern 6) The pattern spans (and is confined to) movement III of part I.
3. Axis of main features. Horizontal braces refer to the partitioning and analysis of part I /III as carried out by Caldwell (1975).
4. Procedure of sub-division and redistribution of components based on Caldwell's partitioning. Red and grey colour coding refers to the two componentts of an initial division and to the descendants of each component.
5. Shows GS links between movements II, III and IV, and remote GS pairings occurring within movements III and IV.

A Mass of Life – Part II
Sections A & A' of Patterns 3 & 4

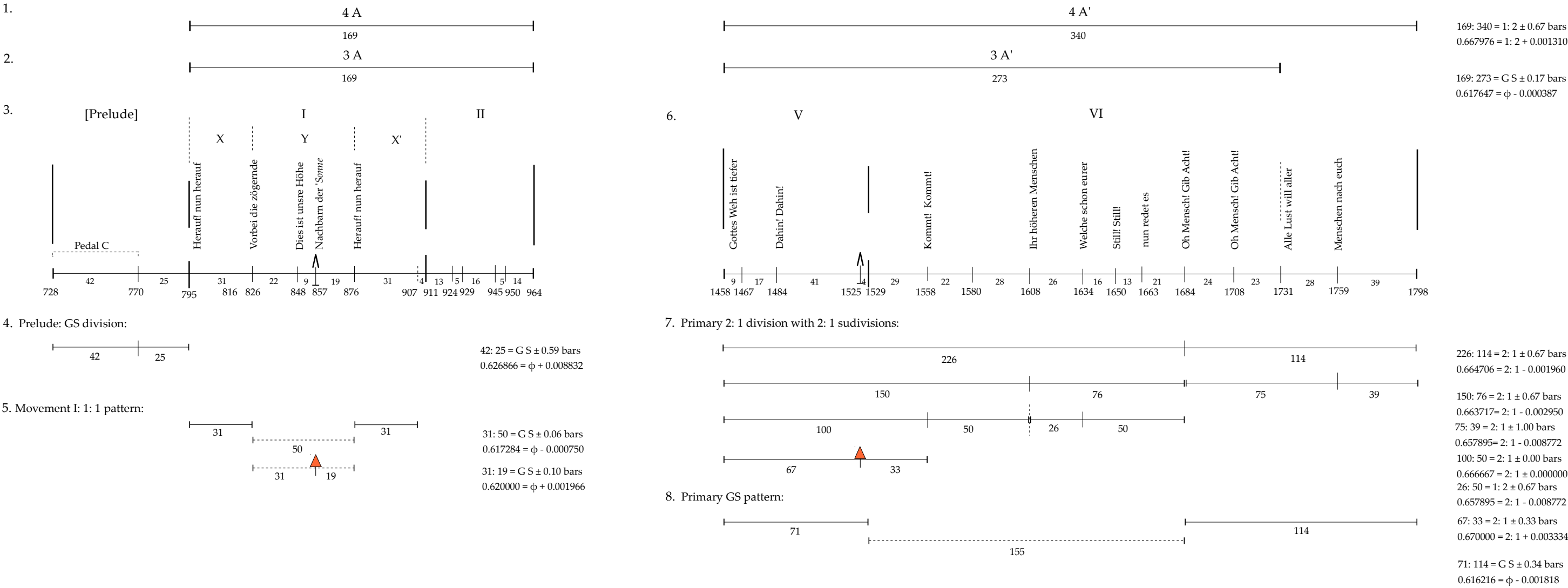


Figure 7.6 A Mass of Life Part II: Sections A and A' of patterns 3 and 4:

1. Pattern 4: 1: 2 relationship between the two A sections. 2. Pattern 3: showing the GS proportion between the two A sections.

3. & 6. Events axes of the A and A' sections. The orchestral prelude preceding A is also included.

4. G: S division within the orchestral introduction. 5. Movement I: 1: 1 pattern. The two outer sections are each in GS proportion with the inner.

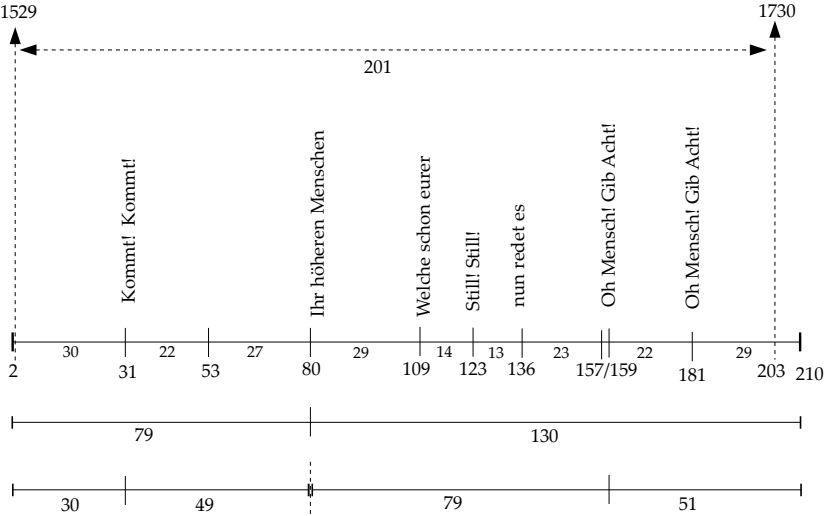
7. Primary 2: 1 division and successive 2: 1 subdivisions within 4 A' 8. Primary GS pattern within 4 A'.

No subdivision procedures were noted in movement II.

Mitternachtslied Zarathustras

Figure 7.7 Mitternachtslied Zarathustras (1898):

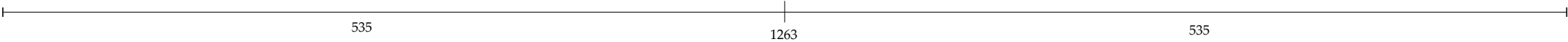
Axis of events indicating the main vocal entries. The music between bar lines 2 and 203 of the work was later transferred to A Mass of Life (cf. bars 1529 – 1729 of the Mass). The diagram also illustrates the basic proportioning of the earlier piece viz. by simple Type I GS proportioning, the overall S: L point falling at bar line 80 at *Ihr höhereren Menschen*. In A Mass of Life the proportioning is radically altered, the former Mitternachtslied now becoming incorporated into a large scale 2: 1 hierarchy where the main 2: 1 point introduces *Oh Mensch gib Acht!*



79: 130 = G S \pm 0.83 bars
0.622010 = ϕ + 0.003980
30: 49 = G S \pm 0.18 bars
0.620253 = ϕ + 0.002219
79: 51 = G S \pm 1.34 bars
0.607692 = ϕ - 0.010342

A Mass of Life – Part II
Section 3B of Pattern 3
(= Movements III & IV)

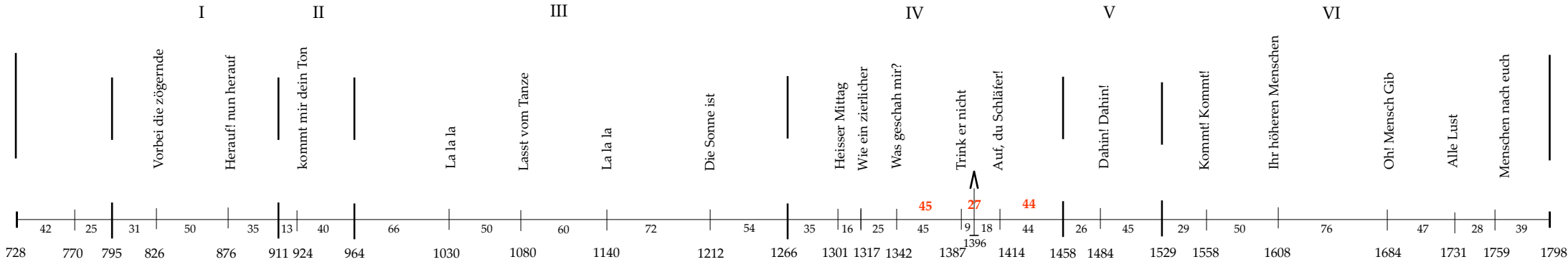
1. Precise mid-point of Part II:



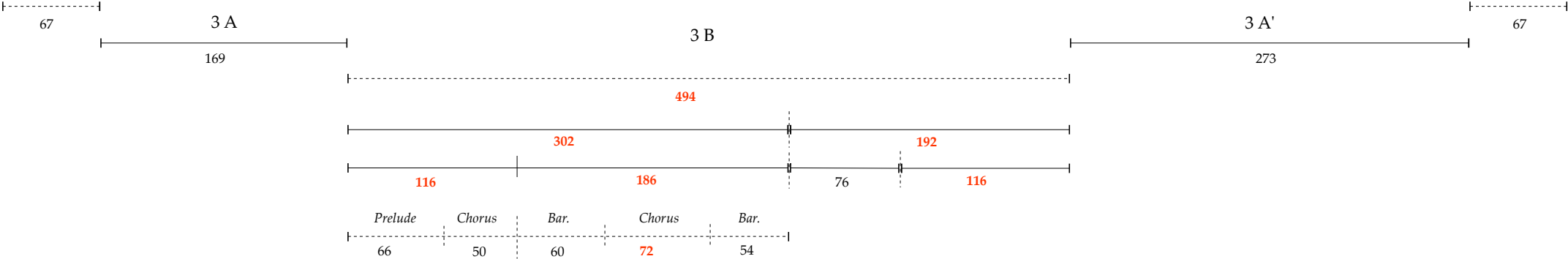
2. Precise L: S GS point of section 3 B:



3.



4. Scheme of subdivision within section 3 B:



169: 273 = G S ± 0.17 bars
0.617647 = φ - 0.000387

302: 192 = G S ± 3.1bars
0.611336 = φ - 0.006698

Pattern 3 as unswitched CGSP:
(169 + 192): (302+273)
= 361: 575 = G S ± 3.48 bars
0.614316 = φ - 0.003718
116: 186 = G S ± 0.65 bars
0.615894 = φ - 0.002140

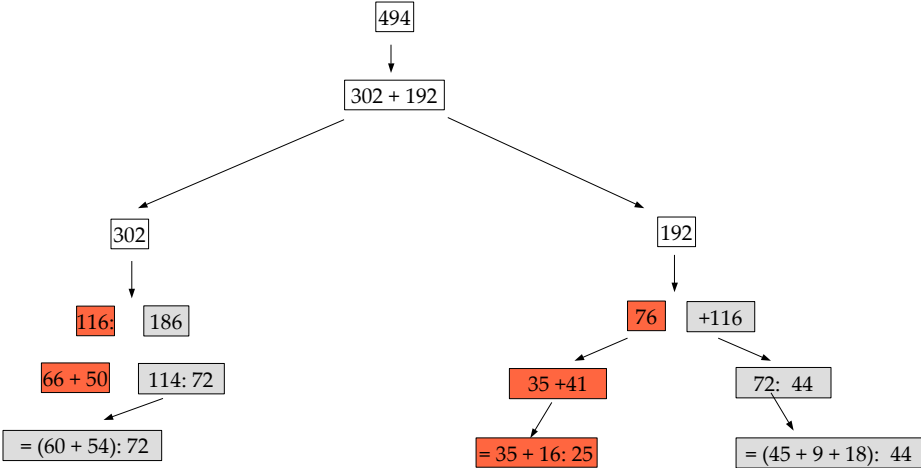


Figure 7.8 A Mass of Life Part II: Subdivision within GS pattern 3 section 3B:

- Shows the precise position of the mid-point of part II.
- Shows the precise position of L:S GS point of section 3B of Pattern 3.
- Axis of main features. Successive text incipits generally mark the beginning of successive sections of music. Bar line 1266 is the mid-point taken between the overall part II mid-point and the section 3B GS point mentioned above.
- Scheme of subdivision within section 3B. Bar numbers in bold red in section 4 and along the events axis indicate numbers approximating to the basic underlying GS additive series. This derives from a GS Type I subdivision: 493.5 305.0 188.5 116.5 72.0 44.5 & 27.5 and is in turn derived from the Fibonacci series x 0.5: 0.5(987, 610, 377, 233, 144, 89, 55 etc.).

A Mass of Life

1.

Trumpets 3, 4 Trumpets 1, 2

85 88 90

Side Drum

Chorus I & II: Sop + Ten.

Ob, Cl, VII & Vla.

Bars 85 - 89

O Du mein Will - le! Du

2 a.

Maestoso, con grandezza T₂

46 48 50

Fl. Picc. Hns. Harp & Strings

Bars 46 - 51

2 b.

59 Trb. & Bass Trb. 61 63 65

Chorus I S A T

Chorus I B

se - lig vor ver rich - ten - den Son - nen pfei - len ei - ne Son - ne sel - ber und ein un - er - bitt - li - cher

Chorus II S A T

Chorus II B

se - lig vor ver rich - ten - den Son - nen pfei - len ei - ne Son - ne sel - ber und ein un - er - bitt - li - cher

Bars 59 - 65

T₂

3 a.

Chorus I Sop.

291 295 300

T₃

Chorus II Sop.

Das ist ein Tanz ueber Stock und Stein — Ich bin der Jaeger, willst du mein Hund oder mei - ne Gem - se sein?—

Bars 291 - 301

3 b.

Chorus I S & A

311 313

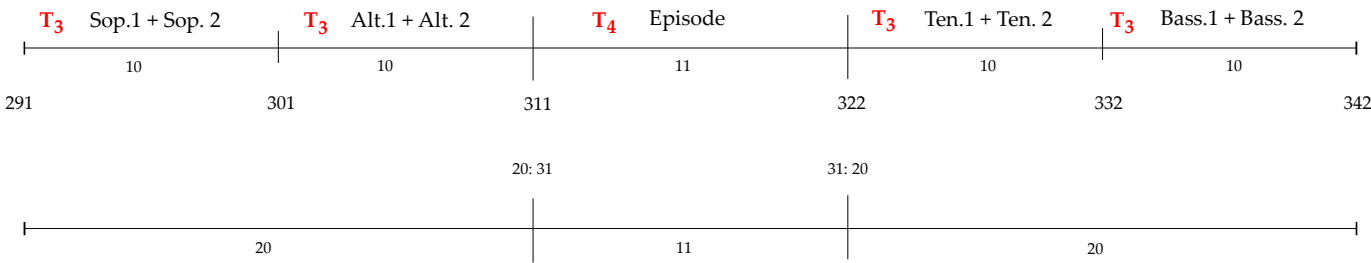
T₄

Chorus II S & A

Ha ha ha ha ha ha la la

Bars 311 - 313

3 c.



Fugal Exposition:
20: 31 & 31: 20
= G S ± 0.52 bars
0.607843 = φ - 0.010191

Figure 7.9 A Mass of Life (1904 – 1905). Music examples - I:

1. Part I movement I: showing the side-drum roll and trumpet fanfare leading to the reprise of the opening section (theme T₁). The GS point lies at bar line 88.
- 2 a. Part I movement I: Theme T₂ (first entry – D major). 2 b. T₂ re-entry in A^b major at Sonne following the GS point at bar line 63.
- 3 a. Part I movement III: Double fugue subject – showing the first entry (sopranos I and II). 3 b. Start of the episode between the second and third entries.
- 3 c. Diagram illustrating the configuration of the fugal exposition as a symmetrical GS pattern.

A Mass of Life

1.

656 Chorus I & II S 658 659 661

Chorus I & II ATB Die re - det sel - ber die Spra - che der Lie - - - be.

VI I & II Die re - det sel - ber die Spra - - - che der Lie - - - be.

Vla div.

Bars 656 - 661

2.

854 Fl. I & Cl. I - III. 857 859

Fl. II - III

Trp. I & II Trp. III & IV Trp. I & II Trb. I & II

Cymbal

Harp I & II

Soloists S A T

Nach - barn dem Schnee. Nach - barn der Son - ne!

Chorus I & II S A

Chorus I & II T B Ei - nem Stur - me gleich

Bars 854 - 859

3.

1682 1684 Baritone Solo 1688

O Mensch! Gib Acht! Was spricht die tie - fe

Chorus I & II T B

Gib Acht!

Vla div.

Vc. div.

Vc. div.

Bars 1682 - 1688

Figure 7.10: A Mass of Life (1904 – 1905). Music examples II:

1. Part I movement V: showing motive T₅ in the violins at the choral climax (bars 658 – 659 - cf. Caldwell p. 84). The GS point lies at bar line 659. Motive T₅ recurs in Part II movement V. (See also Figure 7.4 numbers 4 and 6).
2. Part II movement I: The GS point lies at bar line 857. It is approached *via* the overlapping entries of T₆ in the woodwind and trumpets with a *glissando* in the harps. The word *Sonne* ('sun') sung on a high C by the soprano soloist (with accompanying cymbal clash), marks the beginning of the 19- bar shorter section of the 31: 19 bar division. Motive T₇ is introduced in the following bar. (See also Figure 7.6 numbers 3 and 5).
3. Part II movement VI: Bar line 1684 is the primary 2: 1 point of the concluding 2: 1 hierarchy of the Mass. It re-introduces T₈ *O Mensch gib Acht!* (from Part I, movement III) as well as the accompanying 'Bell Theme' T₇ (Boyle 1982).

Fennimore & Gerda

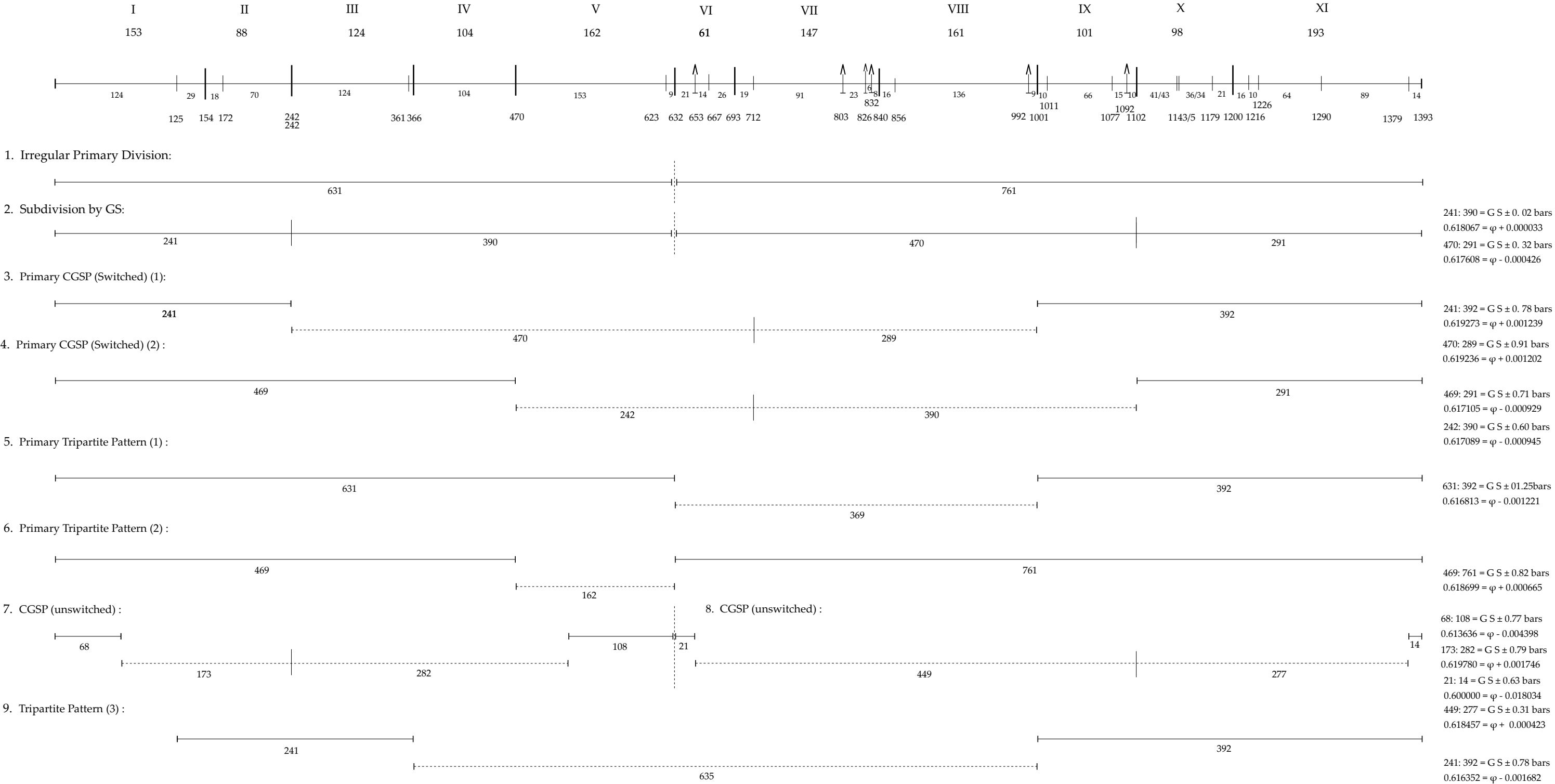


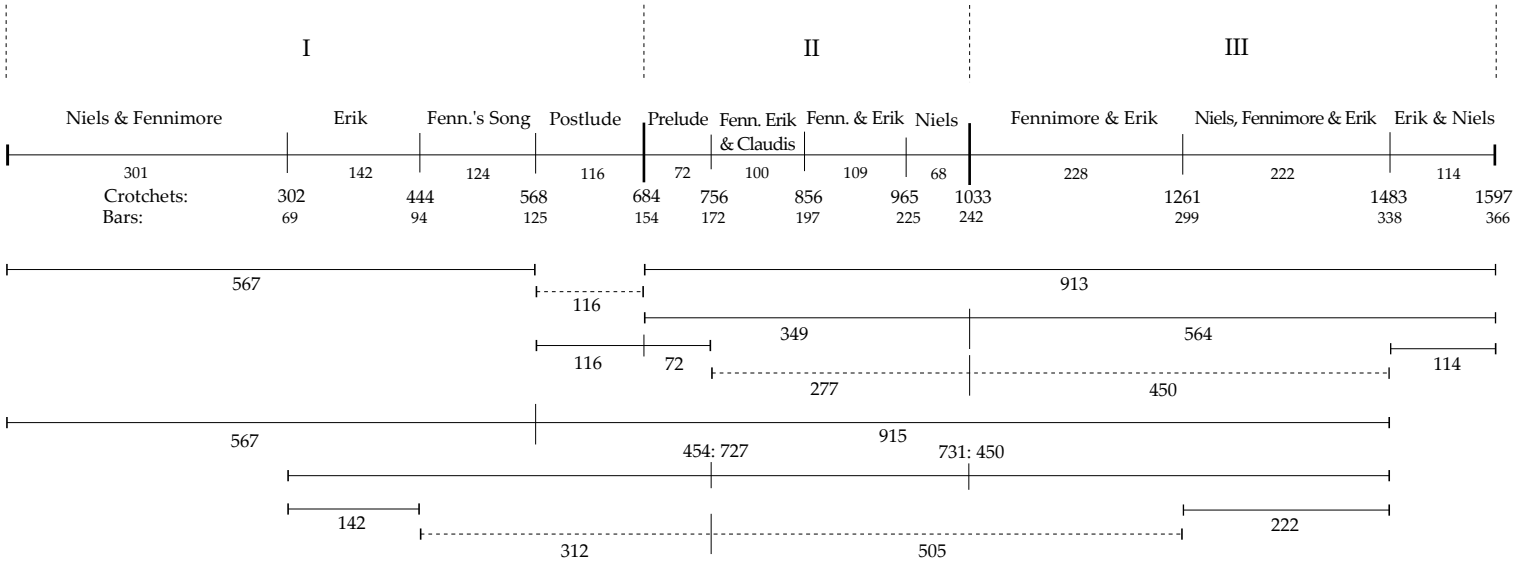
Figure 7.11 *Fennimore & Gerda* – (c.1908–1910):

The axis scale is in *bars* and shows the eleven scenes ("pictures"), indicating also the main junctures, climaxes *etc.* which occur in the opera.

1. The initial proportioning of the opera is unusual in that it starts with an irregular division into two sectors, (631 and 761 bars), made at the juncture of Scenes V and VI.
2. Each of these two sectors is then subdivided by GS, the first S: L whose GS point defines the juncture of Scenes II and III, the second L: S with GS point at the juncture of IX and X. For a description of the remaining partitioning procedures leading to pattern formation *see* the accompanying text.
3. & 4. Two primary CGSP switched patterns. They share a common GS point at bar line 712.
5. & 6. Two tripartite primary patterns. 7. & 8. Two additional CGSPs patterns (unswitched). 9. Additional tripartite pattern.

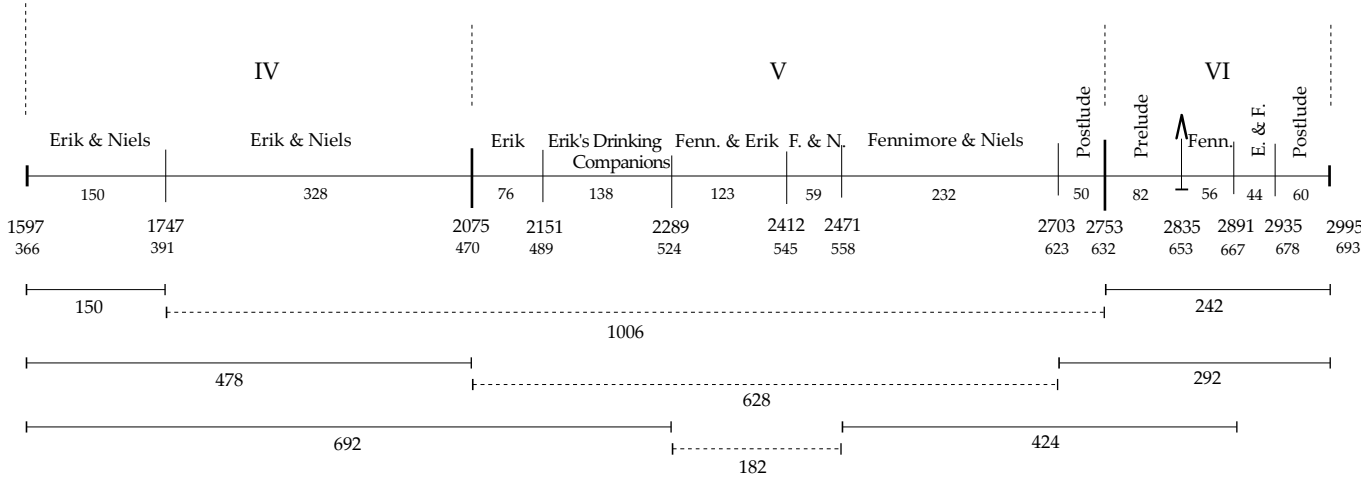
Fennimore & Gerda

1.



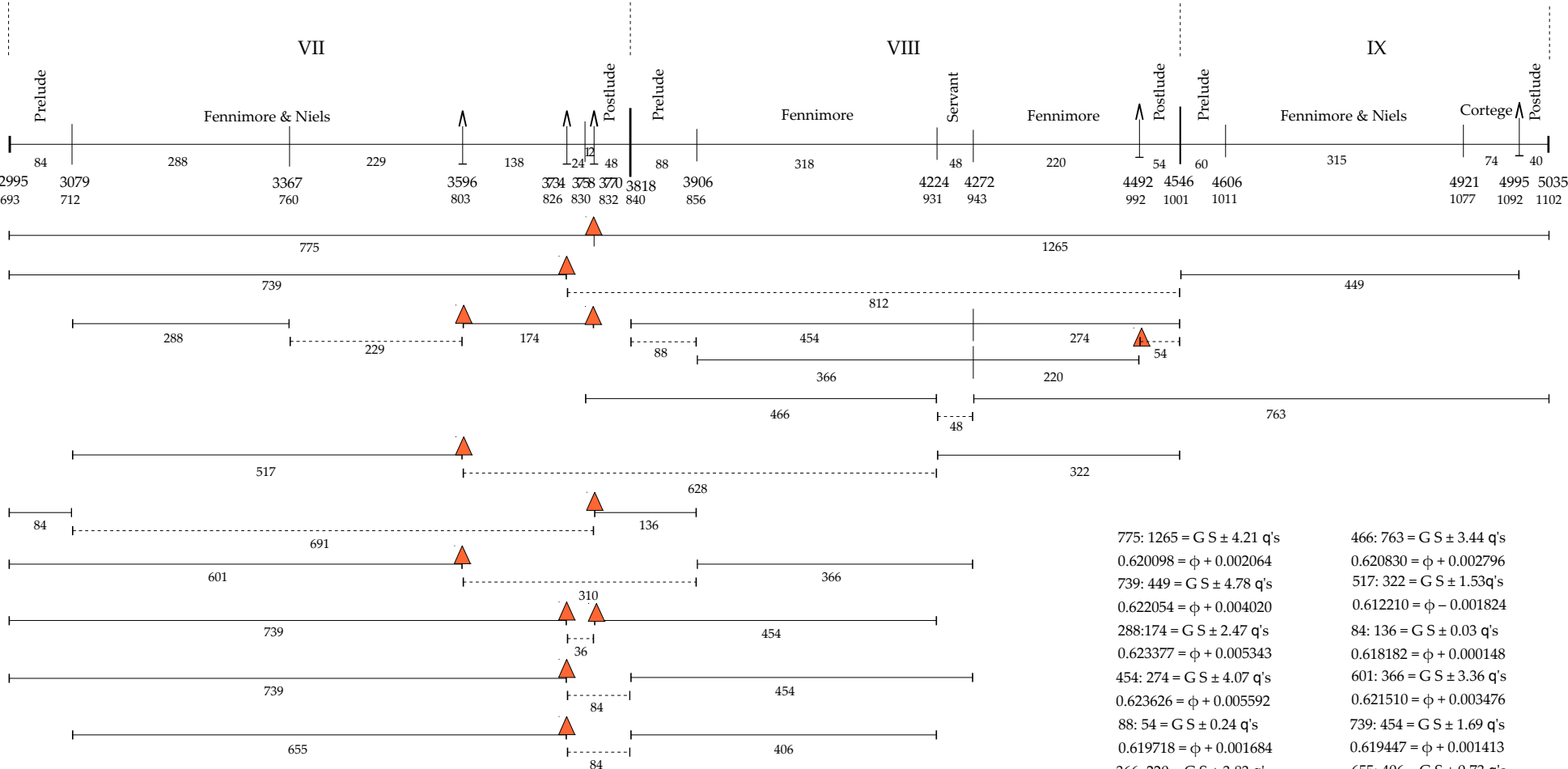
567: 913 = G S ± 1.69 q's
0.616892 = φ - 0.001142
116: 72 = G S ± 0.19 q's
0.617021 = φ - 0.001013
349: 564 = G S ± 0.27 q's
0.617744 = φ - 0.000290
188: 114 = G S ± 1.35 q's
0.622517 = φ + 0.004483
72: 114 = G S ± 0.95 q's
0.612903 = φ - 0.005131
277: 450 = G S ± 0.69 q's
0.618982 = φ + 0.0009481
567: 915 = G S ± 0.93 - 's
0.617409 = φ - 0.000625
454: 727 = G S ± 2.90 - 's
0.615580 = φ - 0.002454
731: 450 = G S ± 1.10 - 's
0.619492 = φ + 0.001458
142: 222 = G S ± 2.96 - 's
0.609890 = φ - 0.008144
312: 505 = G S ± 0.07 - 's
0.618115 = φ + 0.000081

2.



150: 242 = G S ± 0.27 q's
0.617347 = φ - 0.000687
478: 292 = G S ± 2.11 q's
0.620779 = φ + 0.002745
692: 424 = G S ± 2.27 q's
0.620072 = φ + 0.002038

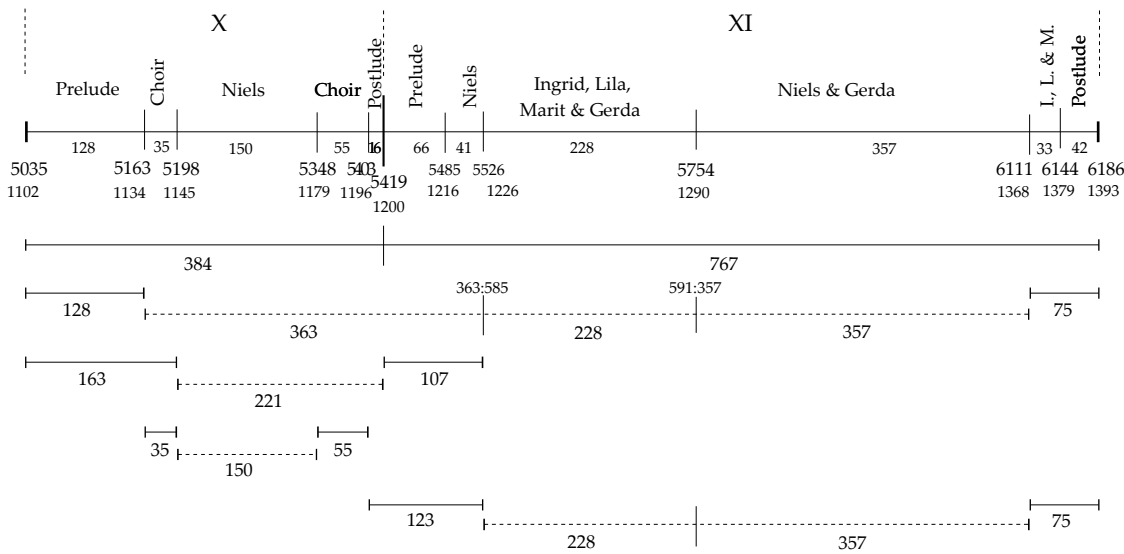
3.



775: 1265 = G S ± 4.21 q's
0.620098 = φ + 0.002064
739: 449 = G S ± 4.78 q's
0.622054 = φ + 0.004020
288:174 = G S ± 2.47 q's
0.623377 = φ + 0.005343
454: 274 = G S ± 4.07 q's
0.623626 = φ + 0.005592
88: 54 = G S ± 0.24 q's
0.619718 = φ + 0.001684
366: 220 = G S ± 3.83 q's
0.624573 = φ + 0.006539

466: 763 = G S ± 3.44 q's
0.620830 = φ + 0.002796
517: 322 = G S ± 1.53q's
0.612210 = φ - 0.001824
84: 136 = G S ± 0.03 q's
0.618182 = φ + 0.000148
601: 366 = G S ± 3.36 q's
0.621510 = φ + 0.003476
739: 454 = G S ± 1.69 q's
0.619447 = φ + 0.001413
655: 406 = G S ± 0.73 q's
0.617342 = φ - 0.000692

4.



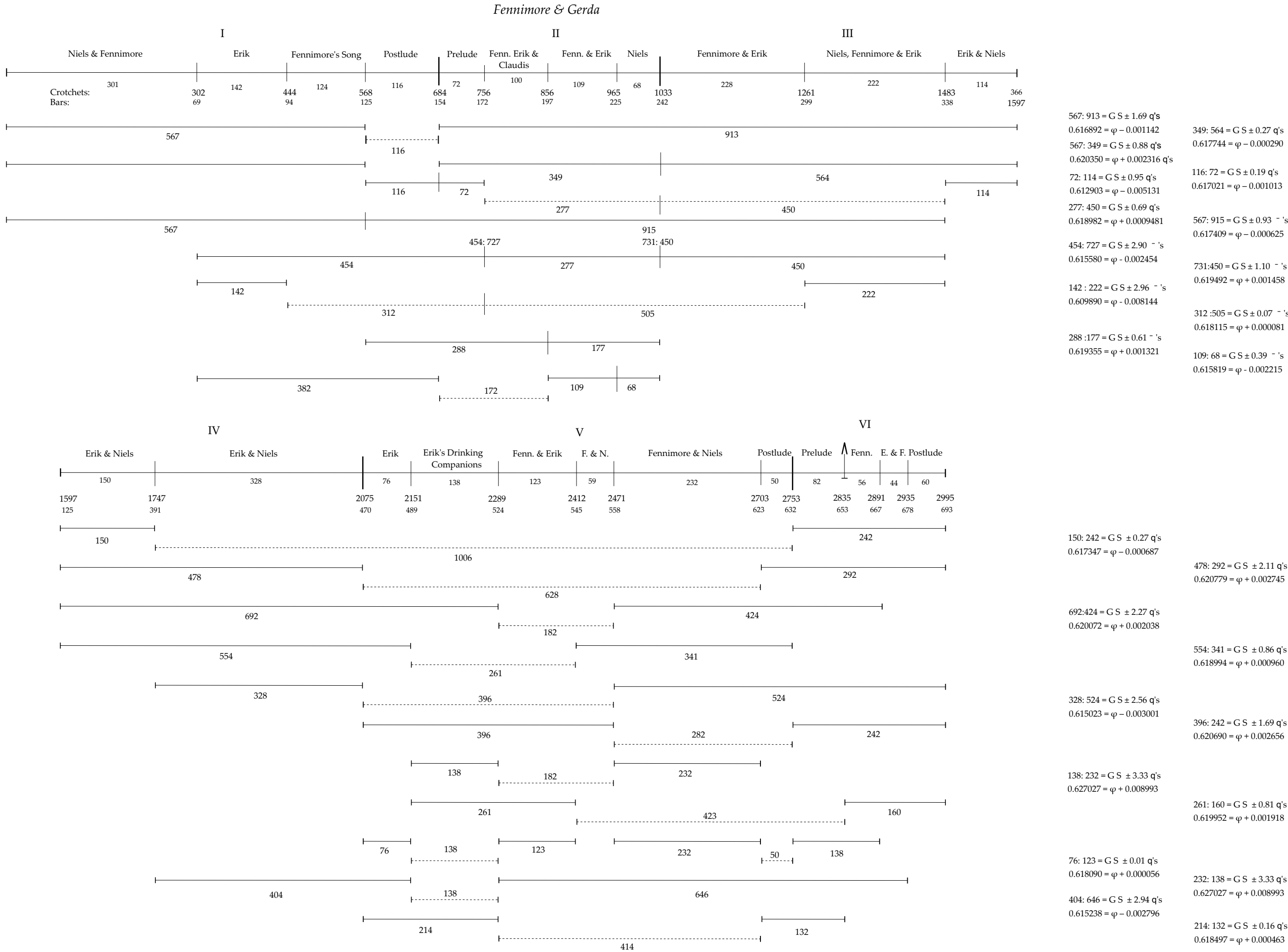
384: 767 = 1: 2 ± 0.33 q'
128: 75 = G S ± 2.54 q's
0.630542 = φ + 0.012508
363: 585 = G S ± 0.90 q's
0.617089 = φ - 0.000946
591: 357 = G S ± 5.10 q's
0.623418 = φ + 0.005384
163: 107 = G S ± 3.87 q's
0.603704 = φ - 0.014330
35: 55 = G S ± 0.62 q's
0.611111 = φ - 0.006923
123: 75 = G S ± 0.63 q's
0.621212 = φ + 0.003178
228: 357 = G S ± 4.55 q's
0.620513 = φ + 0.002479

Character I: 30

Figure 7.12 *Fennimore & Gerda* – (c.1908–1910):

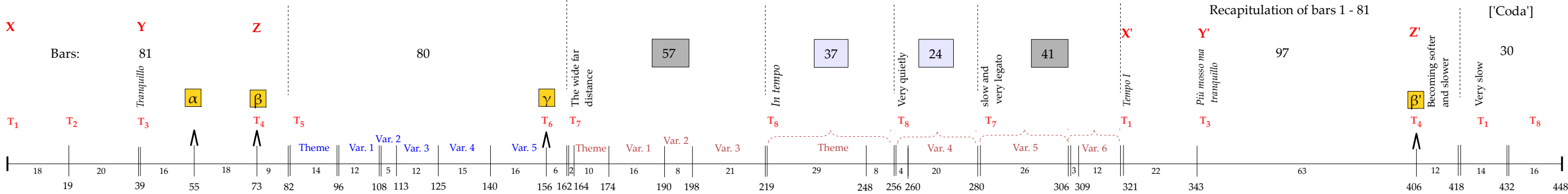
Each of the four axes is scaled in *crotchet beats*, the four together traversing the eleven scenes of the opera. For each scene, the main characters, junctures, climaxes *etc.* are shown. In respect of the proportioning strategies applied, Scenes I – IX are grouped into three sets of three scenes each (nos 1 – 3 above), while Scenes X and XI form a final pair which is cast in a contrasting 1: 2 proportion (no 4 above). For further details, see the accompanying text.

Figure 7.13 *Fennimore & Gerda* – (c.1908 – 1910):
The two axis scales are both in *crotchet reduction* and show the main events of Scenes I – III (upper) and IV – VI (lower axis). For further information on partitioning by GS *see* the text of Chapter .



1.

The Song of the High Hills



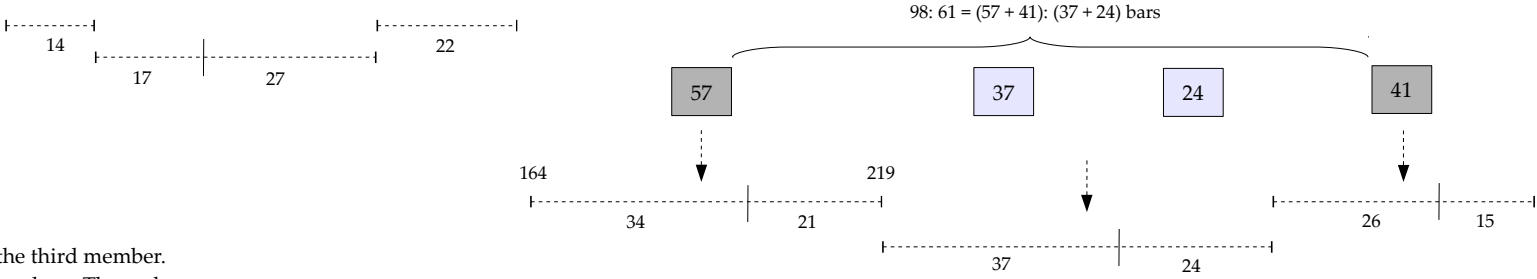
2. Primary Pattern: tripartite (ABA')



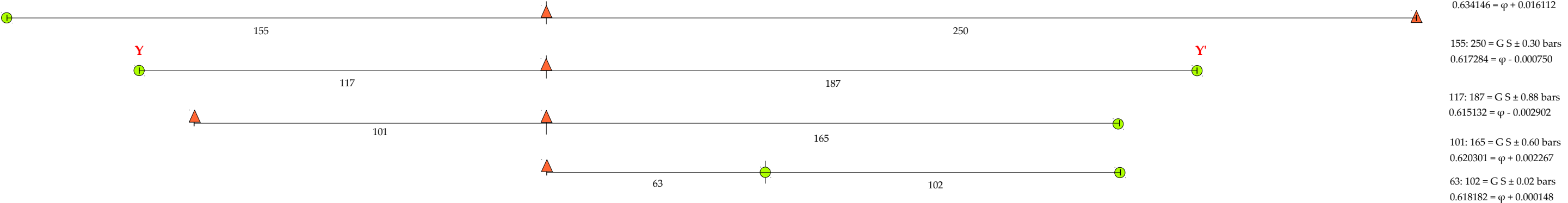
3. Initial division within the A, B and A' sectors



4. Subdivision of B' forming a CGSP and of B'' by GS and the reordering of the GS components



5. Three-member GS hierarchy, with type I subdivision in the third member. The set will form three complete GS patterns among its members. The end points marked Y and Y' indicate respectively: the introduction of T₃ at bar line 39 and the re-currence of T₃ in the A' reprise



Scale 1 inch: 30 bars

Figure 7.14 The Song of the High Hills (1911):

- Upper axis, units in bars, indicating the main sections, climaxes and thematic entries (T₁, T₂, T₃ etc.) occurring within the work. Figures and symbols in blue or purple refer to the partitioning of themes and their variants within the B section as determined by Grimes (1966).
- Overall primary tripartite pattern, indicating a GS proportion between the A and A' sections.
- Initial subdivision of A, A' and B sectors within the overall tripartite pattern.
- Subdivision of the B' and B'' sectors by GS, and showing a CGSP formation within B' and the reordering and GS subdivision of the products in B''.
- Three-member GS hierarchy, with the shared GS point at the bar line 156 climax (T₆)

marks where an end point, 2: 1 point or GS point coincides with a delimiter; marks where an end point, 2: 1 point or GS point corresponds with a climactic point.

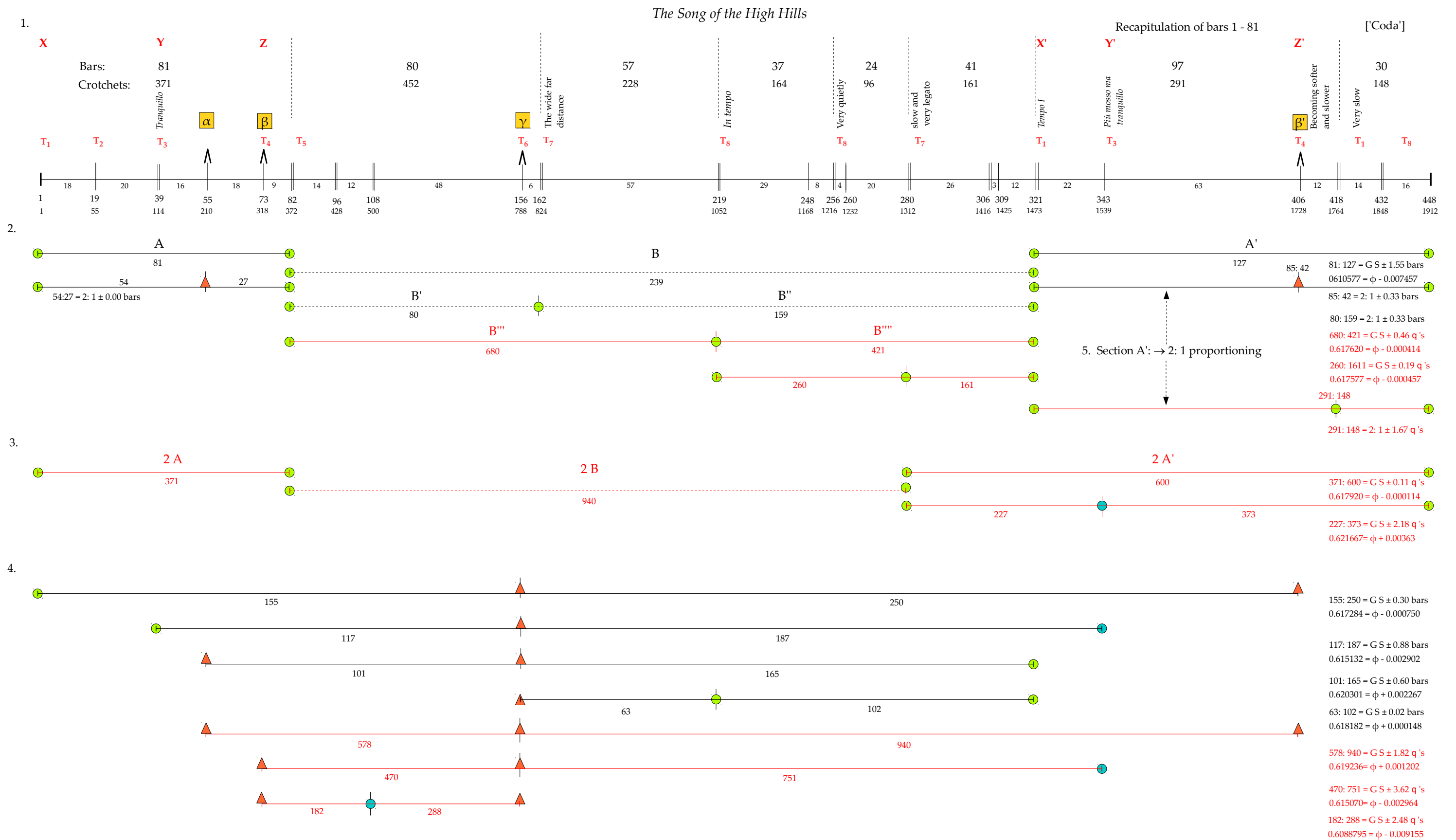


Figure 7.15 *The Song of the High Hills* (1911): Interaction of proportioning at bar and at crotchet levels. N.B. measurements based on crotchet beat counts (indicated in red) are not drawn to scale:

- Upper axis, units in bars, indicating the main sections and selected musical events occurring within the work.
- Primary (tripartite) pattern, showing subdivisions in bars (black) and in crotchet reduction (red).
- Additional tripartite pattern (crotchet reduction - red)
- One three-membered and one two-membered GS hierarchy, with the shared GS point at bar line 156, & relating respectively to bar (black) and crotchet (red) counts.
- The concluding A' section of the work showing subdivision by 2: 1 proportion (upper right hand). marks where an end point, 2: 1 point or GS point coincides with a sub-section delimiter

The Song of the High Hills

T₁

With quiet easy movement

Bars 1 - 4

T₂

Bars 19 - 22

T₃

Tranquillo
Very quietly but not dragging

Bars 39 - 42

T₄

Bars 71 - 76

Figure 7.16 *The Song of the High Hills* (1911) :
Music examples T₁ – T₄. For further details refer to Figures 7.14 and 7.15 and to the accompanying text.

The Song of the High Hills

T₅

Not too slow

82 83 84 85 86 87 88 89 90

Hn. I - II *p*

Hn. III - IV

Vl. I div.

Vl. II div.

Vc. div. D.B.

Bars 82 - 89

T₆

Becoming softer and slower

153 154 155 156 157 158 159 160

Hn. I - VI

Trp. I - III

Cel. Harps I, II

Vl. I, II

Vc., D.B.

Bars 153 - 159

T₇

Very slow

162 163 164 165 166 167 168 169 170 171 172

Hn. I - IV

Ten. (4V)

(To sound as if in the far distance)

VII a 4 + a 4

Bars 162 - 171

T₈

In Tempo

219 220 221 222 223 224 225

Ob. Solo

Vl. I div.

Vl. II div.

Vc., D.B.

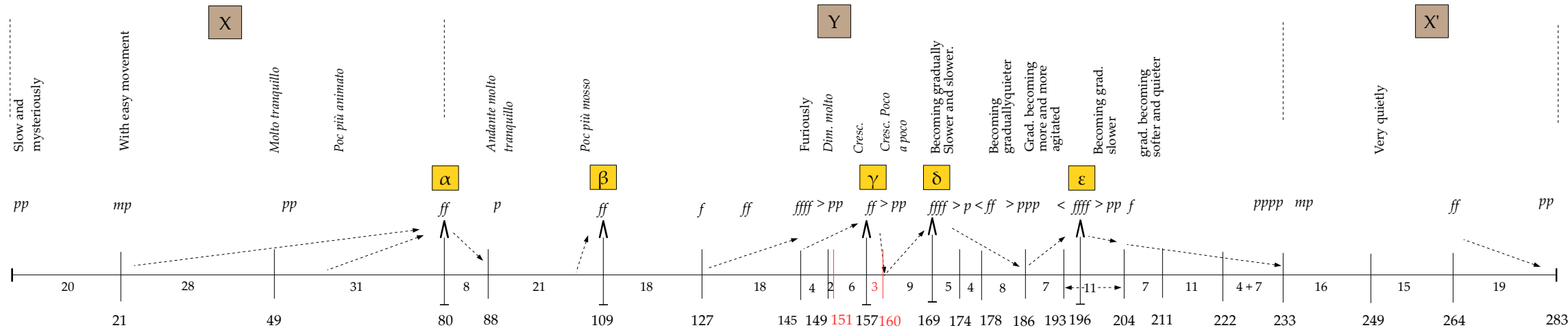
Bars 219 - 224

Figure 7.17 The Song of the High Hills (1911):

Music examples T₅ – T₈. For further details refer to Figures 7.14 and 7.15 and to the accompanying text.

Eventyr – Once upon a Time

1.



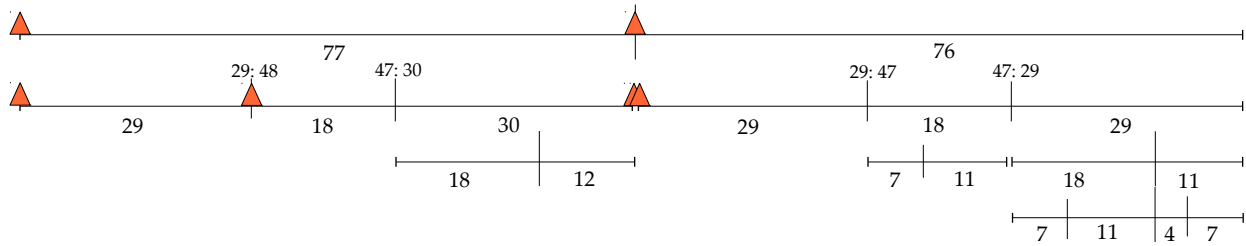
2. Primary GS division showing L: S and S: L points:



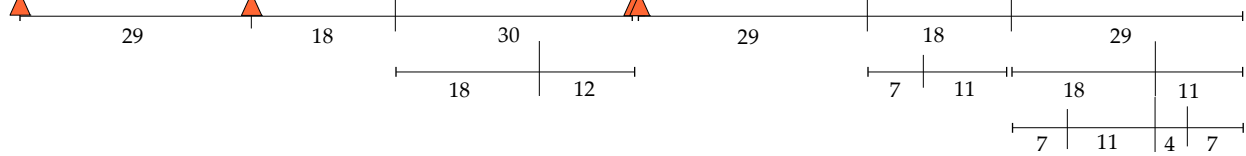
2 a. CGSP formed from L: S point:



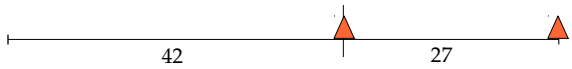
2 b. 1: 1 subdivision of 153-bar B section → 77 + 76 bars:



2 c. Subdivision of B section by Type I (Lucas) GS:



3. Solitary division linking δ and ε climaxes:



$108: 174 = G S \pm 0.29 \text{ bars}$

$0.617021 = \varphi - 0.001013$

$173: 109 = G S \pm 1.29 \text{ bars}$

$0.613475 = \varphi - 0.004559$

$79: 50 = G S \pm 0.73 \text{ bars}$

$0.612403 = \varphi - 0.005631$

$48: 31 = G S \pm 0.82 \text{ bars}$

$0.607595 = \varphi - 0.010439$

$31: 19 = G S \pm 0.10 \text{ bars}$

$0.612403 = \varphi - 0.005631$

$94: 59 = G S \pm 0.56 \text{ bars}$

$0.614379 = \varphi - 0.003655$

$22: 37 = G S \pm 0.54 \text{ bars}$

$0.627119 = \varphi + 0.009085$

$29: 48 = G S \pm 0.41 \text{ bars}$

$0.623377 = \varphi + 0.005343$

$47: 30 = G S \pm 0.59 \text{ bars}$

$0.610390 = \varphi - 0.007644$

$29: 47 = G S \pm 0.03 \text{ bars}$

$0.618421 = \varphi + 0.000387$

$18: 12 = G S \pm 0.54 \text{ bars}$

$0.600000 = \varphi - 0.018034$

$18: 11 = G S \pm 0.08 \text{ bars}$

$0.620690 = \varphi + 0.002656$

$42: 27 = G S \pm 0.64 \text{ bars}$

$0.608696 = \varphi - 0.009338$

Figure 7.18 *Eventyr* – after Asbjørnsen's *Folklore* (1917) :

1. Axis in bars showing the main sections, climaxes and tempo markings. X, Y and X' indicate sections of differing /similar musical content. Arrows with dotted lines represent passages of increasing or decreasing dynamic and/or tempo. For dividers and bar numbers marked in red refer to the accompanying text and to Figure 7.19 example 8.
2. Primary overall L: S GS division.
- 2a. CGSP formed between the primary overall and second member of a two-member GS hierarchy. The pattern corresponds with the ternary musical design XYX' of the work
- 2b. Subdivision of the B section into 2 equal subsections. 2c. Each subsection is then partitioned using Type I Lucas proportioning.
3. Isolated division connecting the δ and ε climaxes.

Eventyr – Once upon a Time

1. Slow and mysteriously
Cellos and Bases

2. With easy movement
V. I

3. Bassoons

4. Molto tranquillo
V. I

5. Picc. and clarinets
Flutes
Cellos and Bases

6. 1st violins
2nd violins
Vlas, Cellos
xylophone
Brass
Basses

7. Violas
Cellos
Basses (octave lower)

8. (a wild shout) Hei
Brass: *ff marcato*
Cellos + bases (octave lower):
dim.

9. accel. molto
Slow and Long Slow
Vlns. vlas.
Oboe I
Cellos, Bases
Strings, WW and Brass

10. much slower
Very slow
Maestoso
Celeste and Harps I, II
Horns (muted) Bs. Cl. Bsns. Sar. Harps
V. I and II
Vla. and Cello
Vla. and Cello + bases 1 octave lower

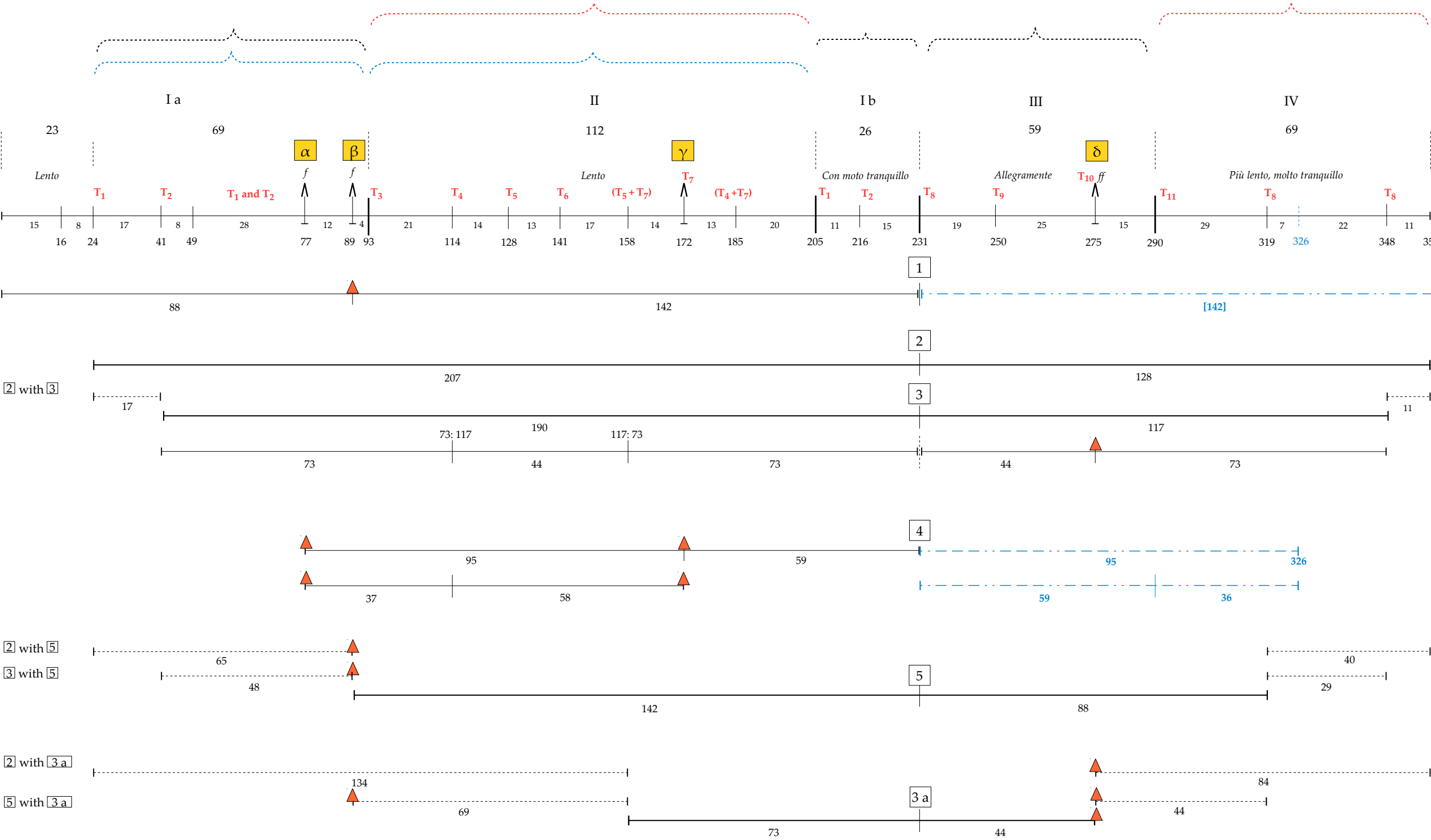
Figure 7.19 Eventyr – Once Upon a Time (1917) : music examples 1– 10 (See text for further details).

Cello Concerto

1.

2.

3.



$112: 69 = G S \pm 0.14 \text{ bars}$

$0.618785 = \phi + 0.000751$

$(69 + 26): 59 = G S \pm 0.18 \text{ bars}$

$0.616883 = \phi - 0.001151$

$69: 112 = G S \pm 0.14 \text{ bars}$

$0.618785 = \phi + 0.000751$

$88: 142 = G S \pm 0.15 \text{ bars}$

$0.617391 = \phi - 0.000642$

$207: 128 = G S \pm 0.04 \text{ bars}$

$0.617910 = \phi - 0.000124$

$17: 11 = G S \pm 0.30 \text{ bars}$

$0.607143 = \phi - 0.010891$

$190: 117 = G S \pm 0.26 \text{ bars}$

$0.618893 = \phi + 0.000859$

$73: 117 = G S \pm 0.15 \text{ bars}$

$0.617391 = \phi - 0.000642$

$44: 73 = G S \pm 0.69 \text{ bars}$

$0.623932 = \phi - 0.005898$

$95: 59 = G S \pm 0.18 \text{ bars}$

$0.616883 = \phi - 0.001151$

$37: 58 = G S \pm 0.71 \text{ bars}$

$0.610526 = \phi - 0.007508$

$59: 36 = G S \pm 0.29 \text{ bars}$

$0.621053 = \phi + 0.003019$

$65: 40 = G S \pm 0.11 \text{ bars}$

$0.619048 = \phi + 0.001014$

$48: 29 = G S \pm 0.41 \text{ bars}$

$0.623377 = \phi + 0.005343$

$142: 87 = G S \pm 0.47 \text{ bars}$

$0.620087 = \phi + 0.002053$

$134: 84 = G S \pm 0.73 \text{ bars}$

$0.614679 = \phi - 0.003355$

$69: 44 = G S \pm 0.84 \text{ bars}$

$0.610619 = \phi - 0.007415$

$73: 44 = G S \pm 0.69 \text{ bars}$

$0.623932 = \phi + 0.005898$

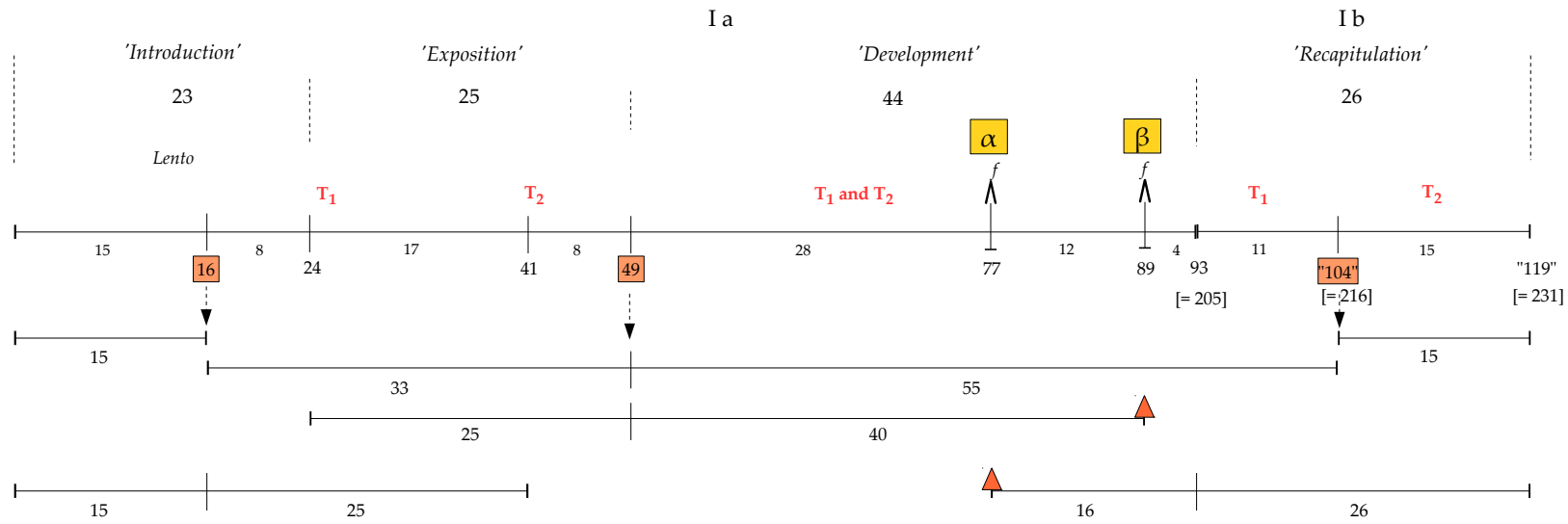
Figure 7.20 Cello Concerto (1920 – 1921) :

- Initial partitioning by GS of the total 358 bars, showing the proportional inter-relationships between the 4 designated sections of the work.
- Axis in bars indicating the main climactic points, tempo markings and thematic entries (T₁, T₂, T₃ etc.).
- GS hierarchy superimposed on the initial layer of GS partitioning shown under 1 above. The hierarchy is potentially 5 membered, but two of the members (boxed numbers 1 and 4) are incomplete, and lack a complimentary GS RH limb to the existing LH limb. The two 'missing' limbs are shown in blue dot/dash lines :

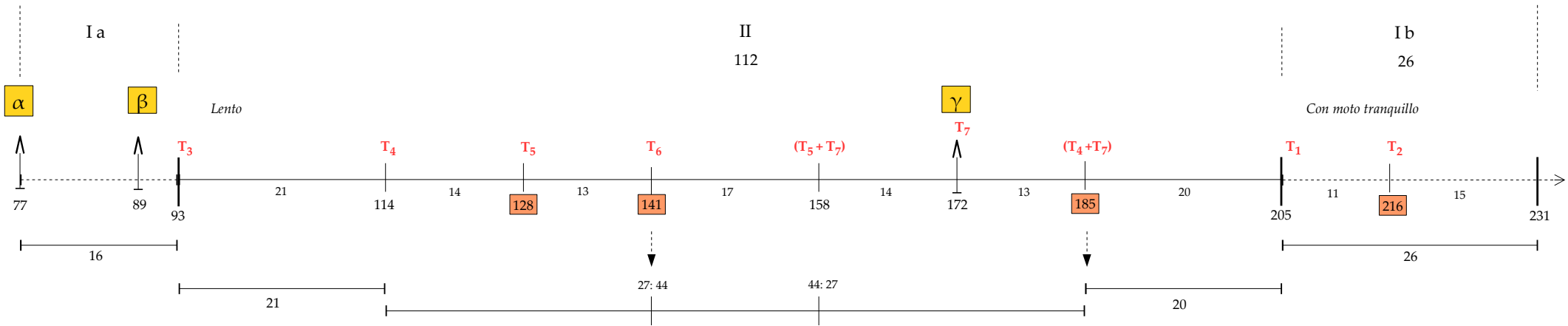
The five possible CGSP's derived from combinations of the 'complete' members (boxed numbers 2, 3, 5 and 3 a) are also indicated. For further information, see the accompanying text and music examples.

Cello Concerto

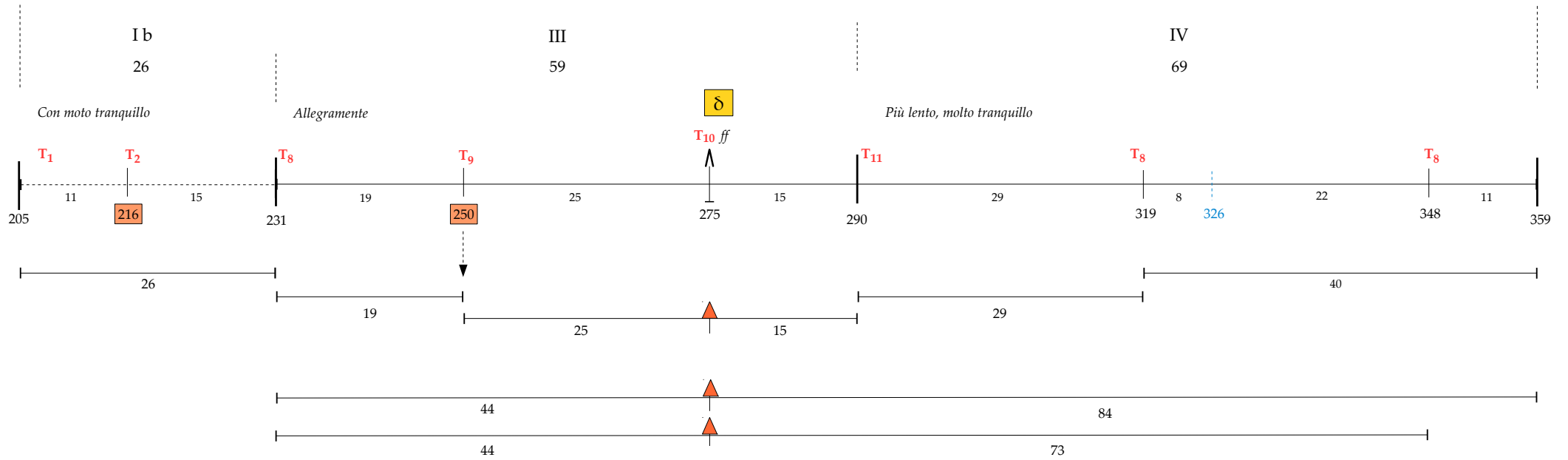
1.



2.



3.



33: 55 = G S \pm 0.61 bars
0.625000 = ϕ + 0.006966
25: 40 = G S \pm 0.17 bars
0.615385 = ϕ - 0.002649
15: 25 = G S \pm 0.28 bars
0.625000 = ϕ + 0.006966
16: 26 = G S \pm 0.04 bars
0.619048 = ϕ + 0.001014

16: 26 = G S \pm 0.04 bars
0.619048 = ϕ + 0.001014
27: 44 = G S \pm 0.12 bars
0.619712 = ϕ + 0.001684

26: 40 = G S \pm 0.79 bars
0.606061 = ϕ - 0.011973
19: 29 = G S \pm 0.67 bars
0.604167 = ϕ - 0.013867
25: 15 = G S \pm 0.28 bars
0.625000 = ϕ + 0.006966

44: 84 = 1: 2 \pm 1.33bars
0.656250 = 1: 2 - 0.010416
44: 73 = GS \pm 0.69 bars
0.623932 = ϕ + 0.005897

Figure 7.21 Cello Concerto (1920 – 1921) :

1. Showing the overall original GS proportioning of sections I a and I b as a continuous sonata form structure (i.e. by omitting the intervening (slow) section II).
 2. Section II illustrating a GS framing by the enclosing bars of I a and by I b (i.e. 16: 26 bars). The main thematic entries and their combinations in section II (T3 to T7) are then positioned by means of a 1: 1 frame (21 and 20 bars), enclosing a symmetrical GS pattern.
 3. Showing further GS patterning encompassing sections I b, III and IV, and the placement by GS of thematic entries T8 to T11. A possible closing 2: 1 proportion for the work (i.e. of 44: 84 bars) is also indicated.
- For further information, see the accompanying text and music examples.

Cello Concerto

T₁

Cello bars 24 - 26

T₂

Cello bars 41 - 42

T₃

Lento

VI. I and II

Vla.

Vlc.

Bars 93 - 97

VI. I and II

Vla.

Vlc.

Bars 93 - 97

T₄

molto cantabile

Cello bars 114 - 116

T₆

Solo.

p

Horn solo bars 141 - 144 [sounding pitch]

T₅ (top) T₇ (bottom staff)

Poco piu mosso

Fl. I and II

Solo Cello

VI. I + Vlc. octave lower

Bars 158 - 161 [compare with bars 128 - 131 which lack the above violin + cello theme]

T₇ (top) T₄ (middle staff)

Molto tranquillo

p Clar. I, II Fag. I, II

mp Solo Cello

p Vln. I, II and Vla.

Bars 185 - 188

Figure 7.22 *Cello Concerto* (1920 – 1921) :
Music examples T₁ – T₇. For further details refer to Figures 7.20 and 7.21 above and to the accompanying text.

Cello Concerto

T₈ **Allegramente**
con moto liquido

Cello bars 231 - 247

T₉

Bars 250 - 256

T₁₀

Vlc. Bars 275 - 278

T₁₁

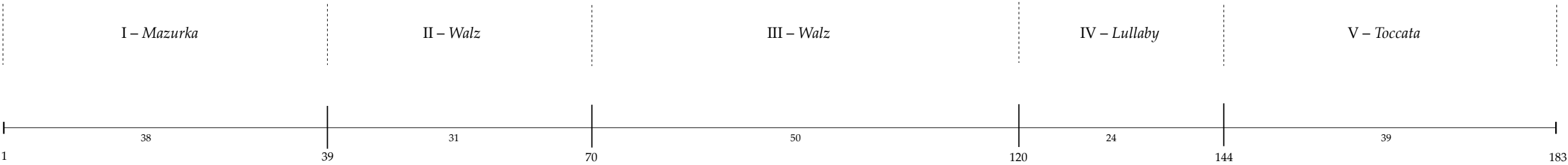
Bars 290 - 297

*** In the woodwind bars 290 - 297, ties occur between every note of the second and third and of the fourth and fifth chords of each bar.

Figure 7.23: *Cello Concerto* (1920 – 1921) :
Music examples T₈ – T₁₁. For further details refer to Figures 7.20 and 7.21 above and to the accompanying text.

Five Piano Pieces

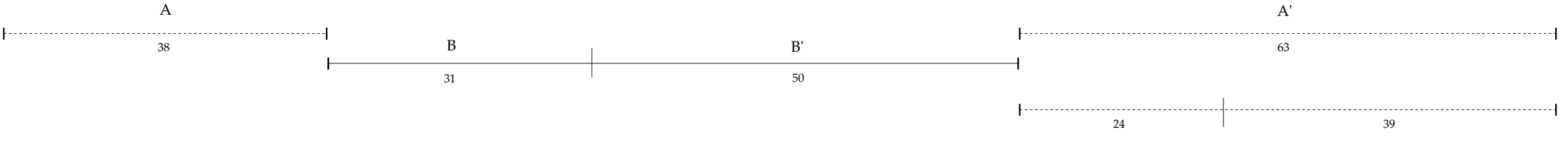
1.



2. Primary GS division :

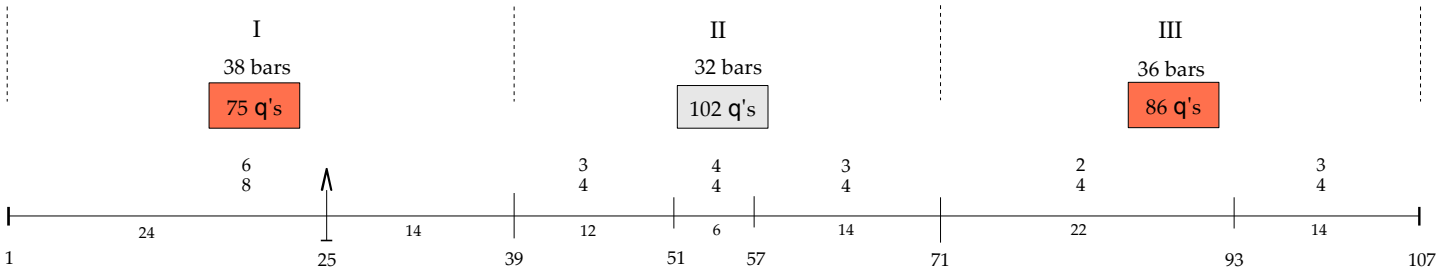


3. Primary CGSP:



Three Preludes

4.



5. Primary GS divisions within each movement :



6. Primary CGSP (switched):



7. CGSP (unswitched) within B section of pattern 1:

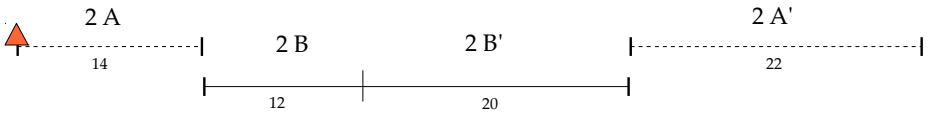


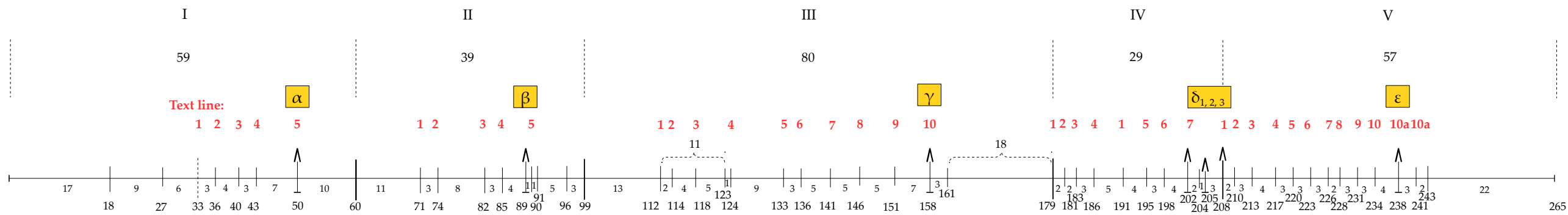
Figure 7.24 Upper (1 - 3): Five Piano Pieces (no. III, Waltz, 1891, revised 1922; remaining movements 1922 - 3) Lower (4 - 7): Three Preludes (Piano Solo – 1923):

1. Axis in bars. 2. Primary GS division - the GS point is at the juncture of the two Walzes. 3. CGSP – the two walzes form the B section, whilst the two concluding movements are also in GS proportion.
4. Axis in bars. 5. Primary GS divisions within each movement. 6. Formation of an overall switched CGSP. 7. A second (unswitched) CGSP is formed within the B section of the switched pattern

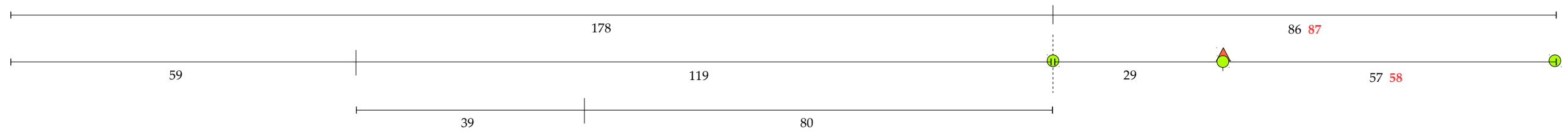
See the accompanying text for further details.

Songs of Farewell

1.



2. Primary 2:1 division with 2: 1 subdivision:



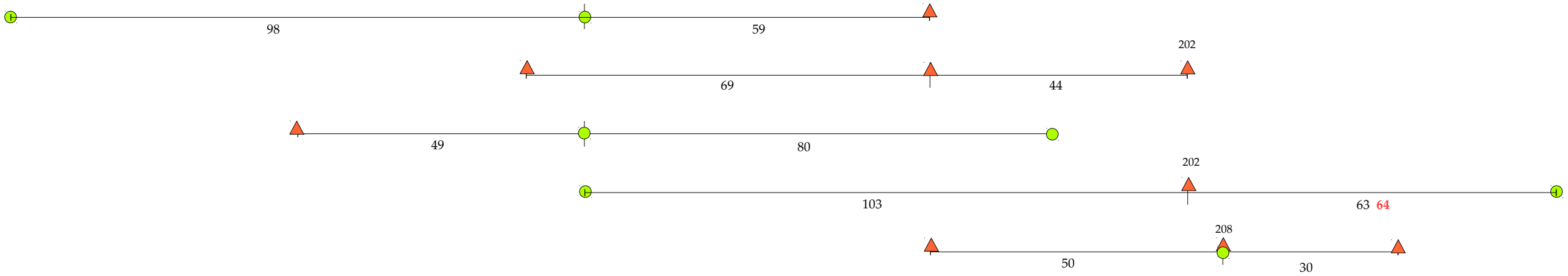
178: 86 = 2: 1 ± 2.00 bars
0.674242 = 0.66R + 0.007576
178: 87 = 2: 1 ± 1.33 bars
0.671698 = 0.66R + 0.005032
59: 119 = 1: 2 ± 0.33 bars
0.668539 = 0.66R + 0.001873
29: 57 = 1: 2 ± 0.33 bars
0.668539 = 0.66R - 0.003875
29: 58 = 1: 2 ± 0.00 bars
0.666667 = 0.66R ± 0.000000
39: 80 = 1: 2 ± 0.67 bars
0.672269 = 0.66R + 0.005603

3. Primary 1:1 pattern with 2: 1 subdivision of the B section:



59: 57 = 1: 1 ± 1.00 bars
59: 58 = 1: 1 ± 0.50 bars
98: 50 = 2: 1 ± 0.66 bars
0.662162 = 0.66R - 0.004504

4. GS divisions linking climaxes and movement separators:



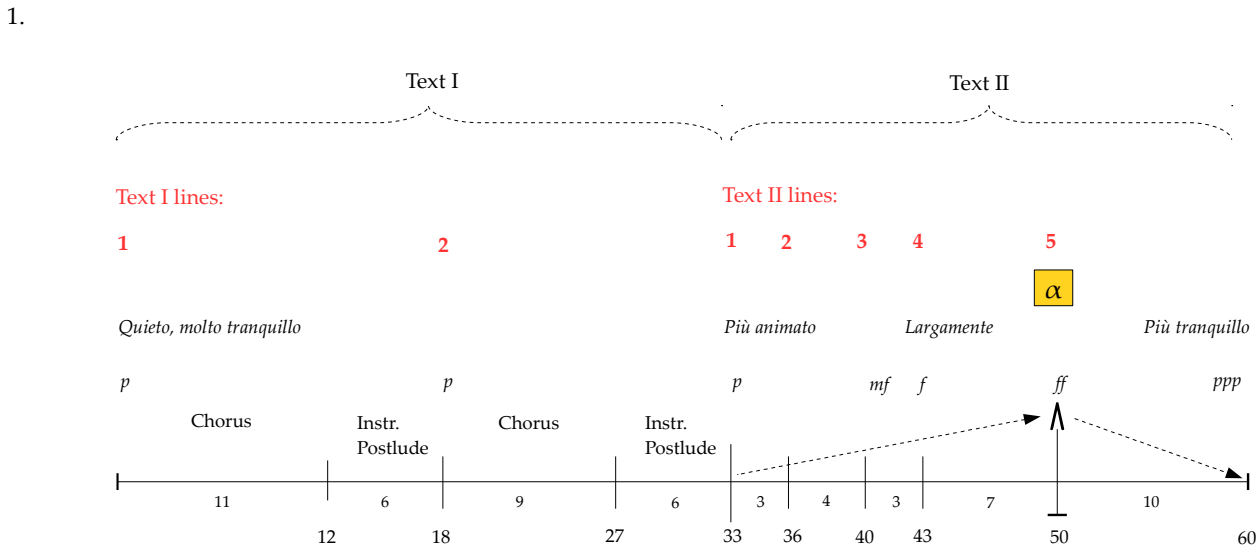
98: 59 = G S ± 0.97 bars
0.624204 = φ + 0.006170
69: 44 = G S ± 0.84 bars
0.610619 = φ - 0.007415
49: 80 = G S ± 0.27 bars
0.620155 = φ + 0.002121
103: 63 = G S ± 0.41 bars
0.620482 = φ + 0.002448
103: 64 = G S ± 0.21 bars
0.616766 = φ - 0.001268
50: 30 = G S ± 0.56 bars
0.625000 = φ + 0.006966

Figure 7.25 *Songs of Farewell* (begun in 1920 or 1921, completed by dictation in 1929):

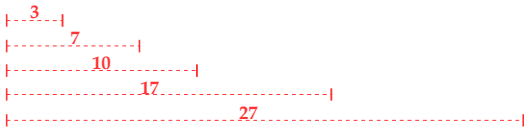
1. Axis in bars, indicating the five main climaxes of the work.
2. The overall proportion and the adjustment of the length of individual movements is obtained through a descending 2: 1 hierarchy.
3. Formation of a 1: 1 pattern with the B section subdivided 2: 1 at the γ climactic point.
4. GS divisions interlinking the five main climaxes with each other and/or with individual movement separators.

Values in red in lines 2 – 4 above indicate the revised values obtained following the insertion of 1 extra bar in the instrumental parts of Movement V immediately before the *Lento molto* concluding section.

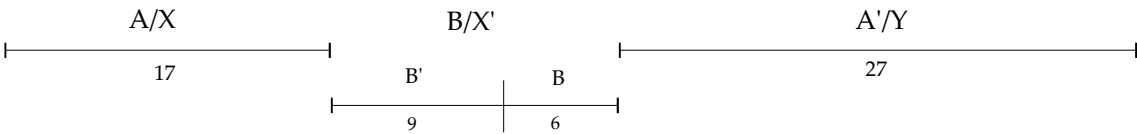
Movement I



2. The placing of the Text II lines follows the summation series 3 + 7 + 10 + 17 etc.



3. The overall pattern is a switched B CGSP;
The musical form = X|X'|Y

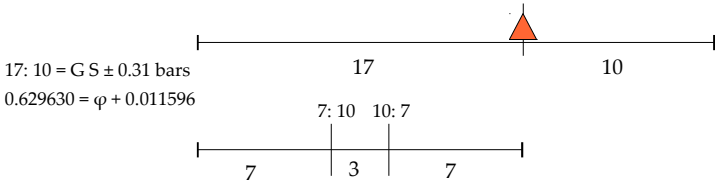


17: 27 = G S ± 0.19 bars
0.613636 = φ - 0.004398

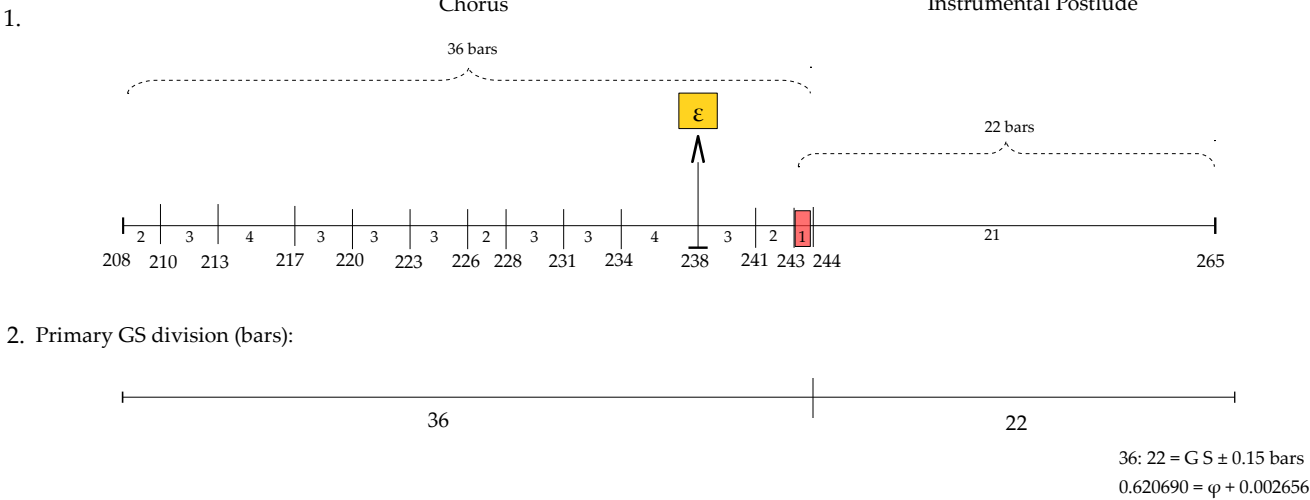
9: 6 = G S ± 0.27 bars
0.600000 = φ - 0.018034

Switched CGSP:
(17 + 6): (9 + 27) = 23: 36 bars
= G S ± 0.46 bars
0.610169 = φ - 0.007865

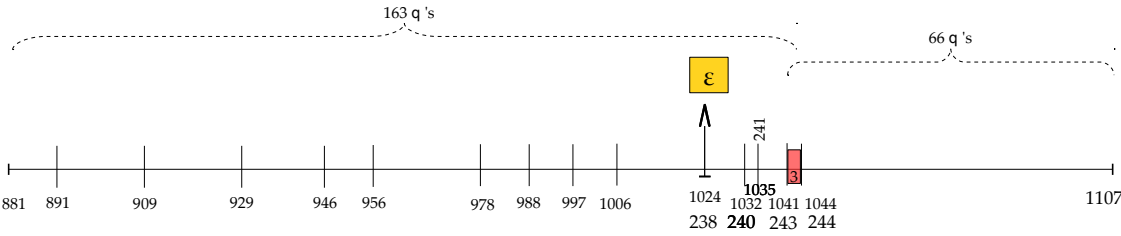
4. GS ascent formation in section A' of the CGSP:



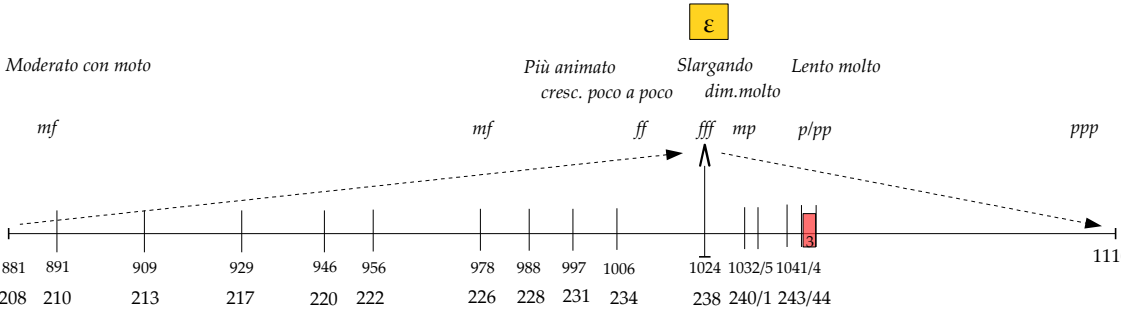
Movement V



3. Axis in crotchet beats:



4. Ascent formation (crotchets):



5. Primary GS division (crotchets):

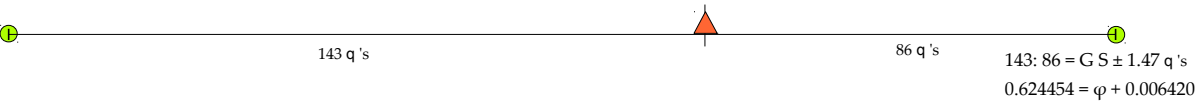


Figure 7.26 Songs of Farewell I: How sweet the silent backward tracings!:

1. Axis in bars: Text I starts: *How sweet etc.* Text II begins: *Apple orchards, the trees etc.*
2. For Text II, successive lines of text are placed after each summation increment (3 bars, 7 bars, 10 bars etc.)
3. The overall design is a CGSP pattern with a switched B section. The accompanying musical design follows the order X|X'|Y however, and not the more frequently found X|Y|X'
4. Ascent formation in section A' (= Text II).

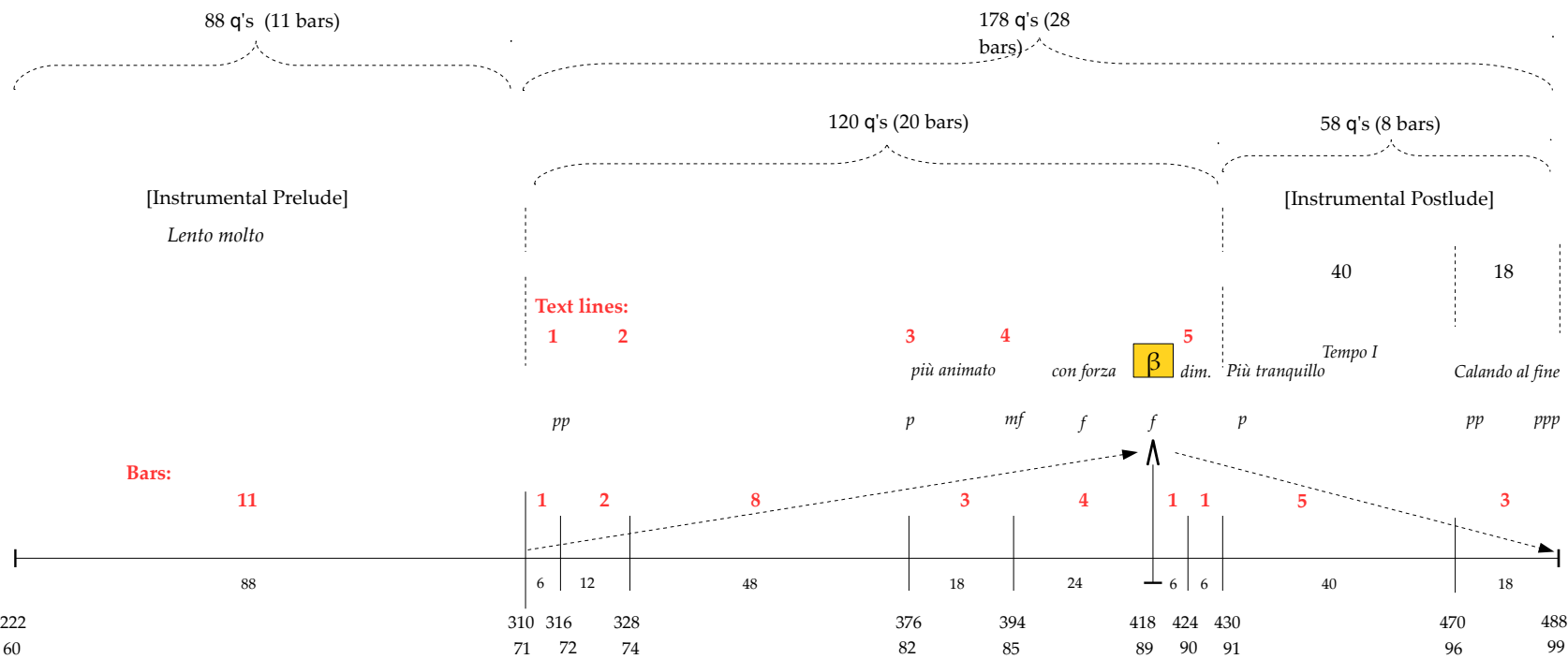
Scale: Inch 1: 10

Figure 7.29 Songs of Farewell V: Now finalè to the shore:

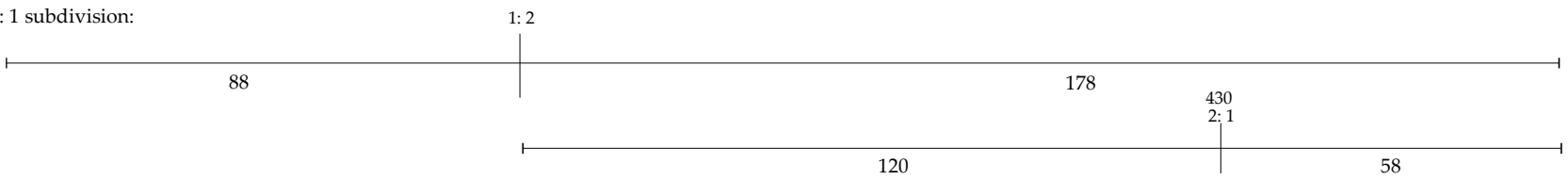
1. Axis in bars: showing (in red) the one-bar overlap of the choral section with the concluding instrumental postlude.
2. Primary GS division (bars) 36: 22 bars, with the postlude here taken as 22 (not 21) bars.
3. Axis in crotchet beats.
4. Ascent formation (occurs only in crotchet reduction). 3 crotchets have been added (83 + 3) to cover the overlap.
5. Climactic point ε then coincides more precisely with the primary GS point of the crotchet axis.

Songs of Farewell: Movement II

1.

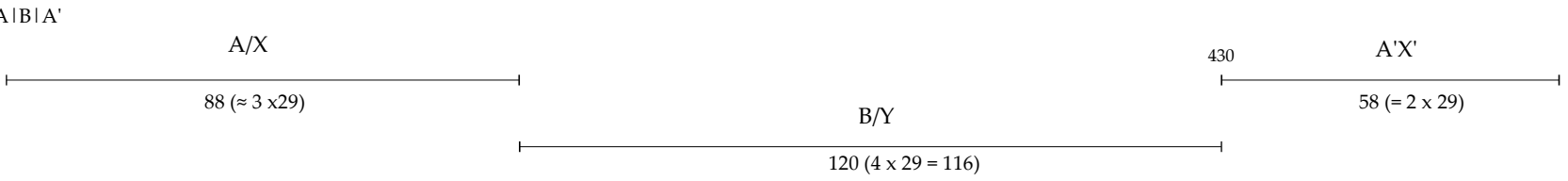


2. Primary 1:2 division with 2: 1 subdivision:



$88: 178 = 1: 2 \pm 0.67 \text{ q's}$
 $0.669173 = 0.6R + 0.002506$

3. Primary tripartite pattern: A|B|A'



$120: 58 = 2: 1 \pm 1.33 \text{ q's}$
 $0.674157 = 0.6R + 0.007497$

4. 'Ascent formation':



$108: 70 = GS \pm 2.00 \text{ q's}$
 $0.606742 = \Phi - 0.011292$

5. Implied quadripartite pattern:

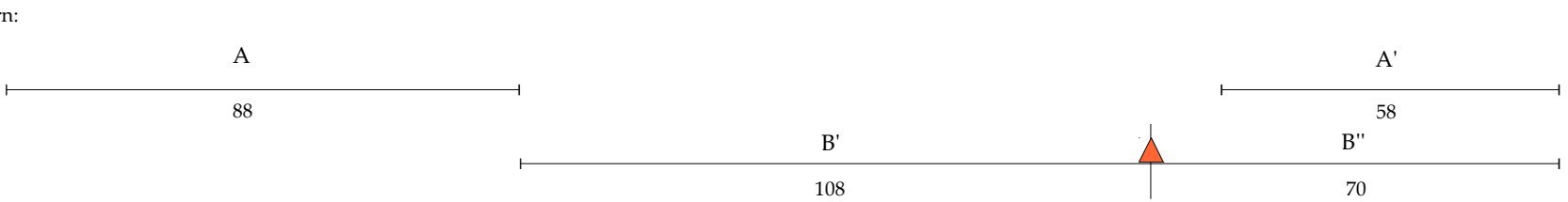
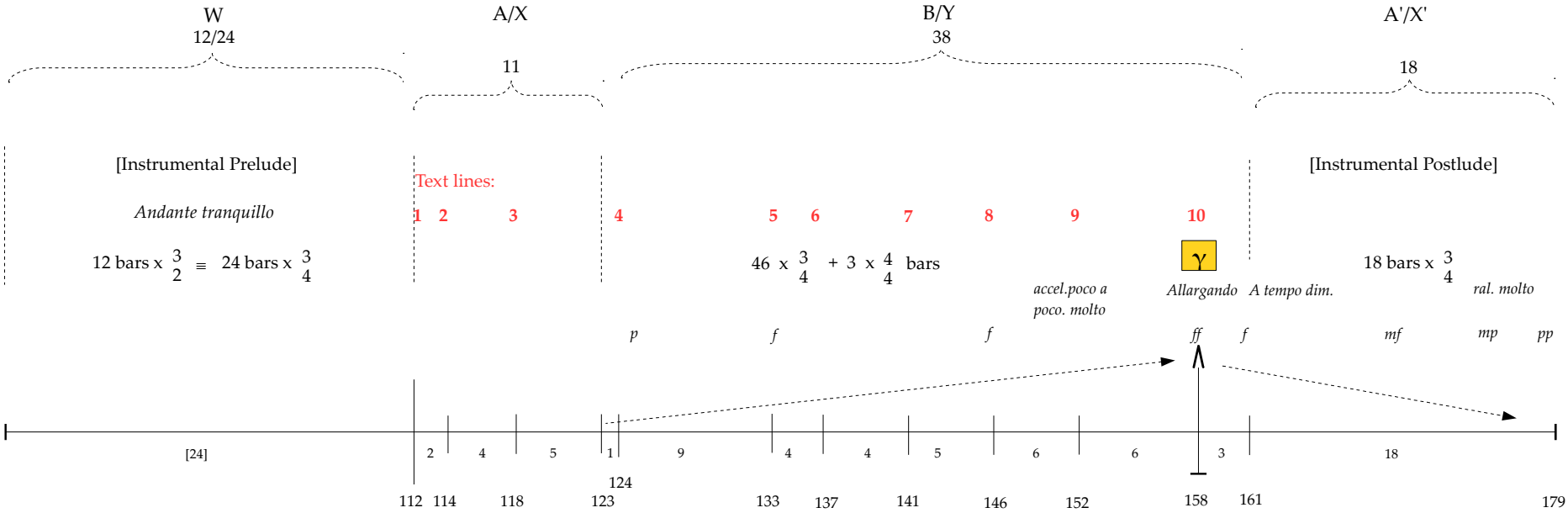


Figure 7.27 Songs of Farewell II: I stand as on some mighty eagle's beak:

1. Axis in crotchet beats. Horizontal braces indicate the main sections of the movement.
2. The primary division is a 1: 2 proportion with one subdivision. This primary division is absent when the axis is displayed in bar units.
3. Primary tripartite pattern: the A|B|A' sections are in approximate multiples of 29.
4. GS 'ascent formation' with the climactic point at the L: S GS point of sections B + A' above.
5. Implied formation of an additional pattern, but where the potential A' and B'' sections are partly superimposed.

Songs of Farewell: Movement III

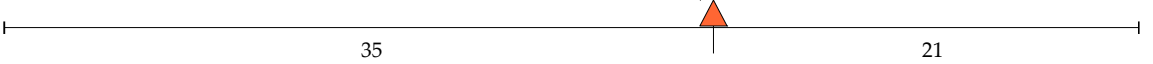
1.



2. Primary GS division with Type I subdivision :



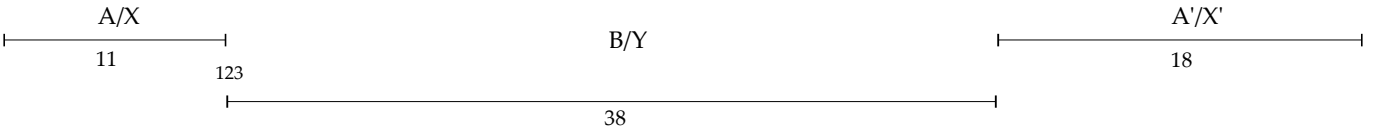
3. GS 'ascent formation' :



35: 56 = G S \pm 0.24 bars
0.615385 = ϕ - 0.002649

35: 21 = G S \pm 0.39 bars
0.618182 = ϕ + 0.000148

4 a. cf A tripartite GS pattern ABA' with matching outer sections XYX'



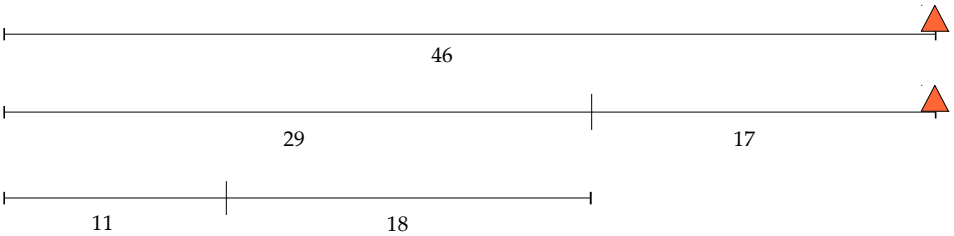
11: 18 = G S \pm 0.08 bars
0.620690 = ϕ + 0.002656

4 b. cf A switched CGSP with partly superimposed A' and B' sections:



cf. the switched CGSP:
(11+21): (35+18) = 32: 53 bars
= G S \pm 0.47 bars
0.623529 = ϕ + 0.005495

5. Type I subdivision within the above switched pattern:



29: 17 = G S \pm 0.60 bars
0.600000 = ϕ - 0.018034

11: 18 = G S \pm 0.08 bars
0.620690 = ϕ + 0.002656

Figure 7.28 Songs of Farewell Movt. III: Passage to you!

1. Axis in bars. The opening 12 bars of 3/2 time should be counted as 24 bars of 3/4 time as shown
2. Primary GS division with the GS point at the juncture of sections A/X and B/Y.
3. GS 'ascent formation' γ with the climactic point at the L: S GS point of sections B/Y + A'/X' above
- 4 a. Tripartite GS pattern ABA' reflecting the ternary musical form XYX'
- 4 b. Implied formation of a switched B CGSP, 11 || 35: 21 || :18, but where the potential A' and B sections are partly superimposed cf. Song II above.
5. Type I GS subdivisions of sectors A/X + B'' of the above switched pattern.

1.

Hns.III con sordino



Hn. III



Cellos, Vlas. V. II



Mvt. I bars 27-32
2.


Mvt. II Cellos bars 60-64
3.


Mvt. II Horns I-IV bars 69-71
4.


Mvt. II Ob. I and II bars 71-72
5.


Mvt. III Cellos bars 112-116
6.


Mvt. III vlins. I,II, vlas. I,II, cellos I,II, bars 123-126
7.


Mvt. V Cellos bars 243-248

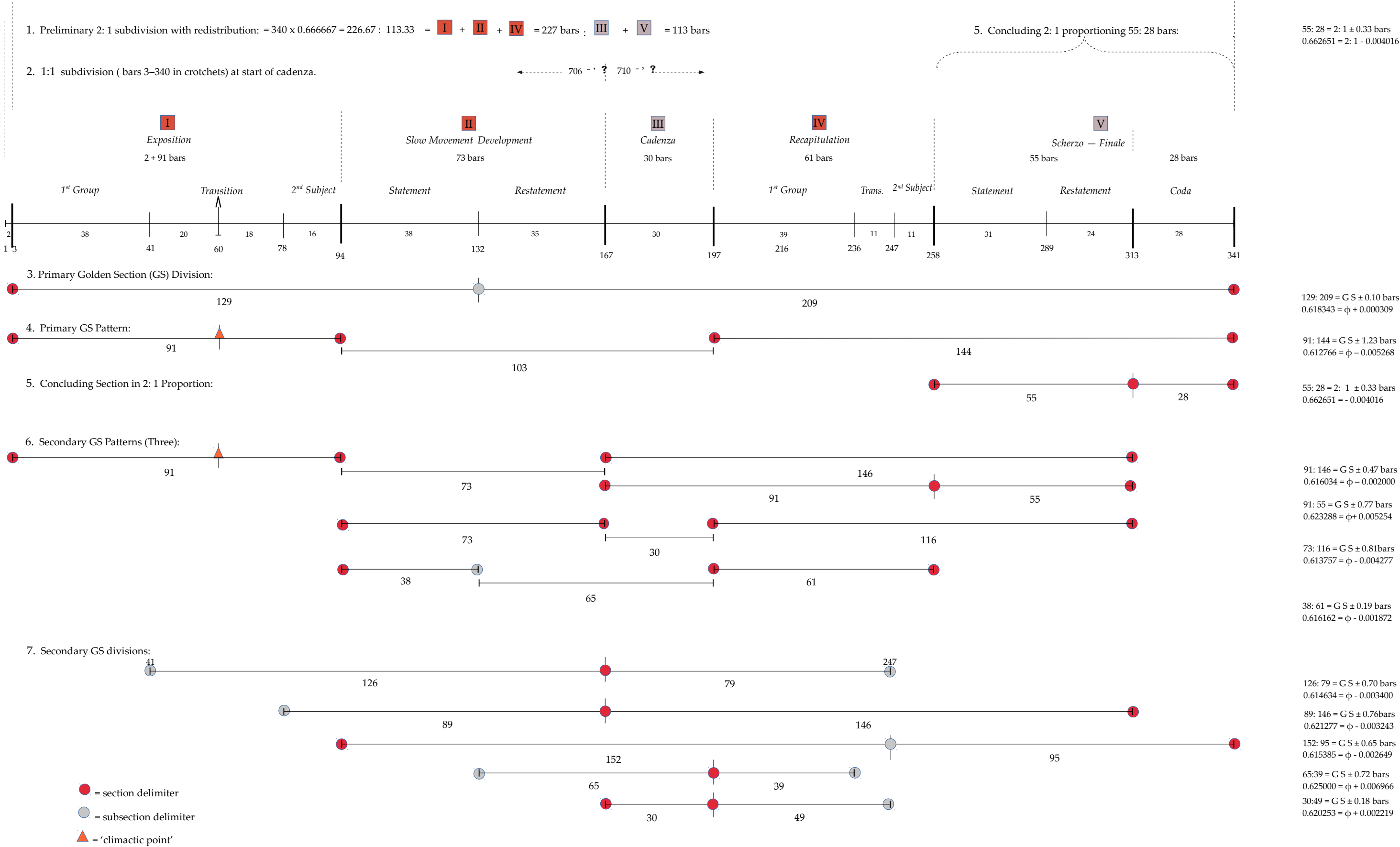
Figure 7.30 *Songs of Farewell*

Music examples numbers 1– 7 referred to in the accompanying text on the *Songs of Farewell*.

Division:	Version	Nos Bars/ q 's	Type	Deviation	Calculated Value	Devn. from Calc. Val.
Overall Primary 2: 1 Division	Current	178: 86 bars	2: 1	± 2.00 bars	0.674242	0.007576
	Revised	178: 87 bars	2: 1	± 1.33 bars	0.671698	0.005032
A & A' sections of the overall Primary Pattern	Current	59: 57 bars	1: 1	± 1.00 bars	0.508621	0.008261
	Revised	59: 58 bars		1: 1 ± 0.50 bars	0.504274	0.004274
Proportion between Mvts. IV: V	Current	29: 57 bars	1: 2	± 0.33 bars	0.662791	0.003875
	Revised	29: 58 bars	1: 2	± 0.00 bars	0.666666	0.000000
Division spanning Mvts. III-V	Current	103: 63 bars	GS	± 0.41 bars	0.620482	0.002448
	Revised	103: 64 bars	GS	± 0.21 bars	0.616766	0.001268
Mvt. V primary GS division(bars)	Current	35: 22 bars	GS	± 0.23 bars	0.614035	0.003999
	Revised	36: 22 bars	GS	± 0.15 bars	0.620690	0.002656
Mvt. V primary GS division (crotchets)	Current	143: 83 q 's	GS	± 3.32 q 's	0.632743	0.014709
	Revised	143: 86 q 's	GS	± 1.47 q 's	0.624454	0.006420

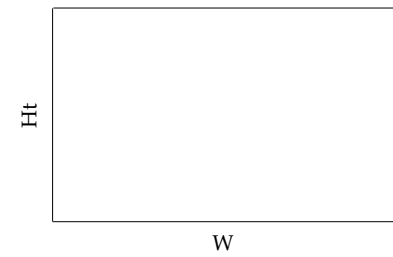
Table 7.2 *Songs of Farewell*: the omission of 1 bar in Movement V in the dictated version of the work:
The insertion of 1 extra bar in the instrumental parts of Movement V immediately before the final *Lento molto* section (see C.E. Volume 13 a p. 34) results in more precise GS values for both of the divisions in V, the proportion in crotchet beats now within the normally accepted range of GS variation. In addition, all remaining proportions listed above show more precise values with the additional bar. This applies especially to the primary 1: 2 division which, without the addition, shows a large discrepancy (± 2.00 bars) which is reduced to within normal acceptable limits with the inclusion of the extra bar (± 1.33 bars).

Violin Concerto



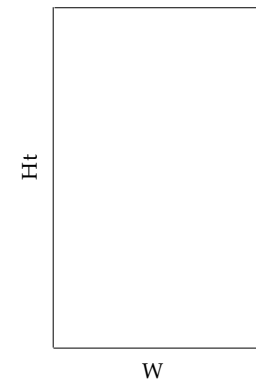
1. The Golden Rectangle:

a. Horizontal:



$$\frac{Ht}{W} = \frac{W}{(Ht + W)} = \phi$$

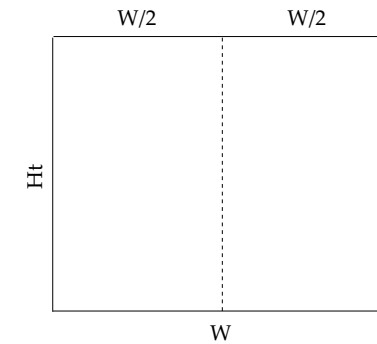
b. Vertical:



$$\frac{W}{Ht} = \frac{Ht}{(Ht + W)} = \phi$$

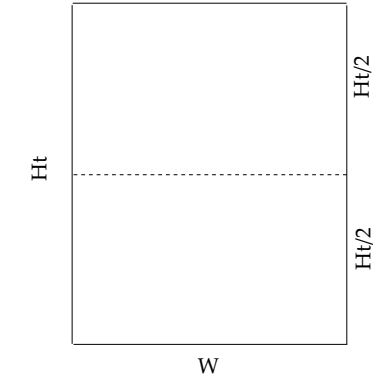
2. The Double Golden Rectangle:

a. Horizontal:



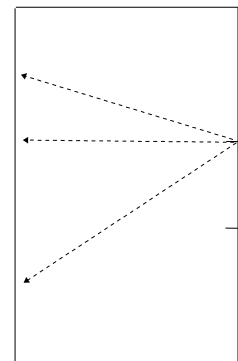
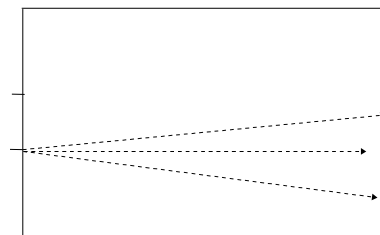
$$\frac{W/2}{Ht} = \frac{Ht}{(Ht + W/2)} = \phi$$

b. Vertical:

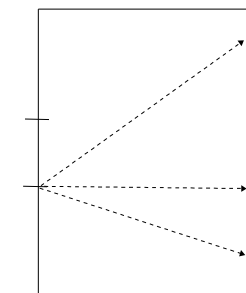
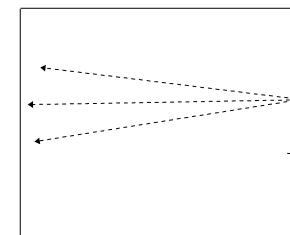


$$\frac{Ht/2}{W} = \frac{W}{(Ht/2 + W)} = \phi$$

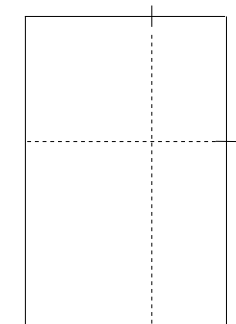
3. Golden Rectangle: subdivision of either vertical border by GS:



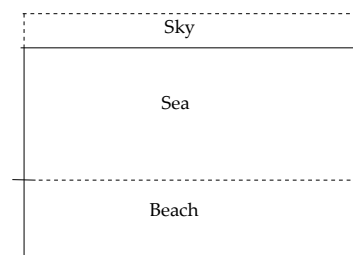
4. General (non-GS) Rectangles: subdivision of either vertical border by GS is frequent:



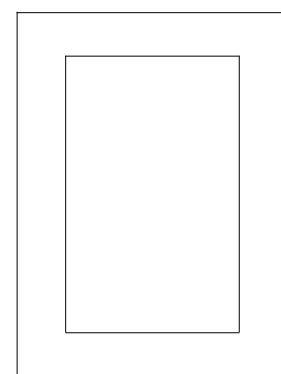
5. GS Rectangle: subdivision by GS of both the vertical an horizontal borders:



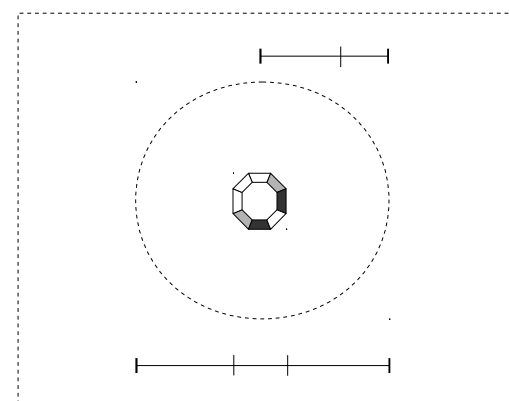
6. Filiger: *Le Pouldu*



7. Filiger: *Christ en Croix*



9. Filiger: *Notations Chromatiques* (selected)



8. Filiger: *Architecture Symboliste*

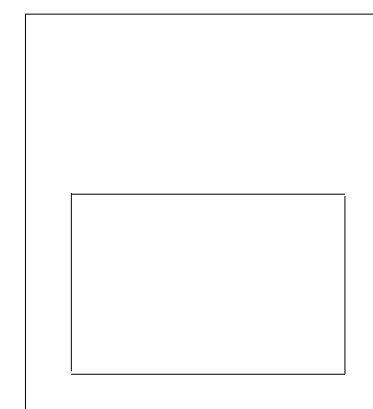
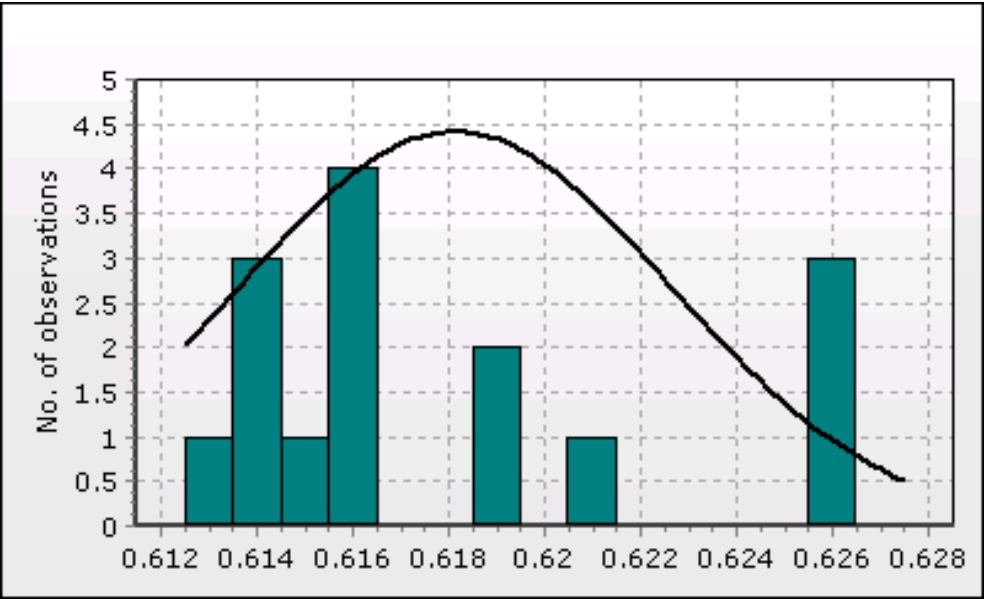


Figure 9.1 Techniques of golden section proportioning used by Paul Sérusier and Charles Filiger (numbers 6 – 9 refer to Charles Filiger's works only):

- 1 a & 1 b – horizontal and vertical golden rectangles: the lengths of the short and long borders of the painting or drawing are in golden section proportion with each other.
- 2 a & 2 b The double GS rectangle: The dimensions of a composition comprise two vertically or two horizontally aligned GS rectangles, as shown.
3. GS divisions are made at the L: S or S: L points on either vertical border. In respect of this initial GS division, the composition may deflect in an upward or downwards direction across the painting, or alternatively remain approximately horizontal.
4. Non-golden rectangles are also frequently divided by GS along either vertical border in the same manner.
5. A painting may be divided along both the horizontal and vertical axes by GS, and without any deflection from the GS proportion. The resulting intersection indicates a 'significant location' in the composition.
6. The lower part of a painting forms a horizontal golden rectangle, so that the upper section of the composition (here the 'sky') is excluded.
7. The inner dimensions of a painted frame are a golden rectangle, whilst the outer frame is not in GS proportion.
8. A composition may contain an embedded golden rectangle in the design



Title of Painting:	Date:	Image Source:	Units	Dimension -1	Dimension – 2	Longer/Shorter Length	Estimate of φ	Devn. From φ
1. <i>Tête de jeune fille</i> – CH 2	1877-79	Internet	mm	61,78	77,98	1,262221	0,613079	-0,004955
2. <i>Bouquet dans un Vase</i> – CH 3	1878-79	Internet	pixels	919,00	1100,00	1,196953	0,625596	0,007562
3. <i>Banlieue</i> – CH 75	1881-82	Internet	pixels	1256,00	1009,00	1,244797	0,616371	-0,001663
4. <i>Paysage au piquet</i> – CH 28	1881-82	Internet	pixels	800,00	655,00	1,221374	0,620853	0,002819
5. <i>Casseur de pierres</i> – CH 36	1881-82	Internet	pixels	273,00	219,00	1,246575	0,616034	-0,002000
6. <i>Paysage</i> – Dorra & Rewald 24	c.1882	Internet	pixels	695,00	582,00	1,194158	0,626143	0,008109
7. <i>Paysannes au travail</i> – CH 60	1882-83	Internet	pixels	2178,00	1820,00	1,196703	0,625645	0,007611
8. <i>Le Couple</i> – CH 136	1884-85	Herbert	mm	163,06	200,31	1,228444	0,619494	0,001460
9. <i>Paysage, l'Île de la Grande Jatte</i> – CH 131	1884	Internet	mm	69,72	55,46	1,257122	0,614039	-0,003995
10. <i>La luzerne, Saint-Denis</i> – CH 145	1884-85	Internet	pixels	4001,00	3184,00	1,256595	0,614138	-0,003896
11. <i>La Seine à Courbevoie</i> – CH 134	1885	Internet	pixels	1462,00	1800,00	1,231190	0,618967	0,000933
12. <i>La rade de grandcamp</i> CH 160	1885	Internet	pixels	712,00	567,00	1,255732	0,614301	-0,003733
13. <i>Le Bec du Hoc, Grandcamp</i> – CH 159	1885	Internet	pixels	463,00	371,00	1,247978	0,615768	-0,002266
14. <i>Embouchure de la Seine, soir, Honfleur</i> – CH 167	1886	Internet	mm	161,85	130,07	1,244330	0,616460	-0,001574
15. <i>l'Hospice et le Phare de Honfleur</i> – CH 173	1886	Internet	pixels	800,00	639,00	1,251956	0,615014	-0,003020
Means:						1,235742	0,618127	0,000092

Abbreviations:

CH = catalogue number in Haucke (1961)

Dorra & Rewald = catalogue number in Dorra & Rewald (1959).

Herbert *see* Herbert (1991).

Figure 9.2 Georges Seurat: *Estimation for the presence of the DGR Format in 15 works completed between c. 1877 to 1886.*

The graph (upper) plots the distribution of the 15 estimates of φ listed in column 8 of the data table (lower). It illustrates that the format of 12 of the works corresponds closely to the DGR, whilst the 3 remaining possibly suggest more a 5: 8 (0.625000) format. More pre-1886 examples than are available would be needed to test whether, within the earlier works, there exists a distinct 5: 8 format (and which is separate from the DGR).

Title of Painting and Catalogue Number:	Date:	Image Source:	Longer Border mm.	Shorter Border mm.	Estimate of φ	Devn. from φ
<i>Tas de Varech au Bord de la Mer</i> G. I no. 36	1890	G. I p. 20	105,00	65,00	0,617647	-0,000387
<i>Laveuse au Pouldu</i> G. I no. 38	1890	G. I p. 20	121,75	76,00	0,615676	-0,002358
<i>La Marchande de Bonbons</i> C.R. C-1894.3.Fig	1894	Morlaix p.63; Masson: p. 56	182,50	110,00	0,623932	0,005898
<i>Marie Francisaille</i> C.R. C-1896.2.Fig	1895	BT Peintre p. 121	269,00	160,00	0,627040	0,009006
<i>Hérakléa</i> C.R. C-1896.1Myt.	1895	BT Peintre p. 107	225,00	147,00	0,604839	-0,013195
<i>Marie Francisaille</i> C.R. C-007.Fig	1896	BT Bret. p. 22	225,00	130,00	0,633803	0,015769
<i>L’Attente à la Fontaine</i> G. I no. 130	1896	BT UMI fig. 42	111,80	67,00	0,625280	0,007246
<i>La Source</i> G. I no. 140	1896	G. I p.144; BT UMI fig. 43	239,50	152,50	0,610969	-0,007065
<i>La Fatigue</i> C.R. C-055.Fig	1897	BT Peintre p. 123	270,00	163,25	0,623197	0,005163
<i>La Vision près du Torrent</i> G. I no. 131	1898	G. I p .97	153,00	94,50	0,618182	0,000148
<i>Tobie et l’Ange</i> G. I no. 136	1898	–	71,75	43,00	0,625272	0,007238
<i>La Moisson de Blé Noir</i> G. I no. 142	1899	BT: Bret. p.134	225,00	134,00	0,626741	0,008707
<i>Jeune Bretonne à la Faucille</i> G. I no. 144	1899	BT: Bret. p.111	225,00	140,00	0,616438	-0,001596
<i>Breton construisant sa Maison</i> G. I no. 159	1903	–	72,00	46,50	0,607595	-0,010439
<i>La Fleur de Feu</i> G. I no. 167	1903	–	86,80	50,00	0,634503	0,016469
<i>La Valée</i> G. I no. 168	1903	Morlaix p.48	164,00	100,00	0,621212	0,003178
<i>Les Jeux de la Reine Anne</i> G. I no.178	1904	G. I p.127	189,50	115,00	0,622332	0,004298
<i>L’Annonciation</i> G. I no. 179	1904	G. I p.119; Masson pl. 19	151,00	95,00	0,613821	-0,004213
<i>Le Buisson Ardent</i> G. I no. 180	1904	BT Peintre p. 131; Masson pl. 20	102,25	67,75	0,601471	-0,016563
<i>L’ Adoration des Mages</i> G. I no. 181	1904	BT Peintre p. 131; Masson pl. 21	102,25	65,50	0,609538	-0,008496
<i>Paysage aux vieux Saules</i> G. I no. 183	1904	–	72,00	45,00	0,615385	-0,002649
<i>Paysages aux trois Peupliers</i> G. I no. 184	1904	–	72,00	43,50	0,623377	0,005343
<i>Le Passage du ruisseau</i> C.R. C-057.Fig	1905	Masson pl. 15; BT UMI fig.43	98,00	59,00	0,624204	0,006170
<i>Arbres Rouges et Fougères en Automne</i> G. I no. 193	1905	–	72,00	44,00	0,620690	0,002656
<i>Les Ondins</i> G. I no. 196	1906	–	73,00	44,00	0,623932	0,005898
<i>Les Elfes</i> G. I no. 197	1906	G. I p.114	172,00	106,25	0,618149	0,000115
<i>Les Kobolds au Repos</i> G. I no. 198	1906	ABC Peinture: between pp. 96-97	159,25	97,75	0,619650	0,001616
<i>Les Kobolds au travail</i> G. I no. 199	1906	BT Bret p. 56	185,00	115,00	0,616667	-0,001367
<i>Paysage Vert</i> G. I no. 201	1906	Masson p. 110	153,00	97,25	0,611389	-0,006645
<i>Paysage au Rideau d’Arbres Jaunes</i> G. I no. 209	1906	Masson pl. 18	100,00	61,00	0,621118	0,003084
<i>Madonne (au voile)</i> G. I no.217	1907	–	72,00	44,00	0,620690	0,002656
<i>Poires et Vieilles faïences</i> G. I no. 229	1908	G. I p.141	93,80	58,00	0,617918	-0,000116
<i>Le Repos des Chasseresses</i> G. I no. 238	1908	G. I p.114	190,25	116,00	0,621224	0,003190
<i>La Mort de Cléopatre</i> G. I no. 247	1908	–	92,00	57,80	0,614152	-0,003882
<i>La Reine Égyptienne</i> G. I no. 257	1909	–	71,50	44,00	0,619048	0,001014
<i>Les trois Peupliers dans un Vallon</i> G. I no. 264	1909	–	71,75	44,50	0,617204	-0,000830
<i>Les Filles de Pelichtim</i> C.R. C-1908.2.Myt	1910	BT Bret p. 124	185,00	115,00	0,616667	-0,001367
<i>Paysage aux Peupliers Jaunes</i> G. I no. 269	1910	G. I p. 141	126,00	75,00	0,626866	0,008832
<i>Les Origines</i> G. I no. 279	1910	BT Peintre p. 139.	224,50	132,25	0,629292	0,011258
<i>Le Cylindre d’Or</i> C.R. C-001.Div	1910	G. I p. 6	240,00	152,00	0,612245	-0,005789
<i>Paysage au Pommier Fleuri</i> G. I no. 284	1910	–	71,50	44,50	0,616379	-0,001655
<i>Paysage Ogival</i> C.R. C-1921.1.Pay	1921	BT Peintre p. 149	269,00	168,00	0,615561	-0,002473
<i>Cueillette des Fleurs au bord du Ruisseau</i> G. I no. 291	1911	–	88,00	55,00	0,615385	-0,002649
<i>Arbres le long du Ruisseau</i> C.R. C-036.Pay	1912	–	86,75	54,25	0,615248	-0,002786
<i>La Récolte du Gui</i> G. I no. 361	1915	–	87,00	52,75	0,622540	0,004506
<i>Hommage à la Chatelaine</i> G. I no. 362	1915	–	86,75	54,00	0,616341	-0,001693
<i>La Rencontre avec la Fée</i> G. I no. 364	1916	–	92,50	57,00	0,618729	0,000695
<i>Les Arbres au Flanc de la Colline</i> G. I no. 367	1917	–	72,00	43,00	0,626087	0,008053
<i>Paysage au Ruisseau dans la Forêt</i> G. I no. 370	1917	–	72,00	45,00	0,615385	-0,002649
<i>Les Blés Coupés</i> G. I no. 374	1917	–	71,50	45,00	0,613734	-0,004300
<i>La Fileuse aux Feuilles de Chêne</i> G. I no. 376	1918	–	72,00	44,75	0,616702	-0,001332
<i>La Conteuse</i> G. I no. 379	1918	–	92,50	58,00	0,614618	-0,003416
<i>La Dame de Kerbrau</i> G. I no. 382	1918	–	72,00	43,75	0,622030	0,003996
<i>Entelechie (ou la Philosophie)</i> G. I no. 383	1918	–	71,25	44,00	0,618221	0,000187
<i>Entelechie Guérit les Malades par Chansons</i> G. I no. 384	1918	–	71,25	44,75	0,614224	-0,003810
<i>Concile Féérique</i> G. I no. 389	1920	–	71,50	44,50	0,616379	-0,001655
<i>Concile Féérique</i> G. I no. 390	1920	–	71,75	43,00	0,625272	0,007238
<i>Les Fiancés</i> G. I no.394	1920	–	72,00	44,75	0,616702	-0,001332
<i>Pommes et Écuelles Bleues</i> C.R. C-1922.2.Nat	1922	–	87,00	54,75	0,613757	-0,004277
<i>La Tapisserie – huile sur toile</i> C.R. C-1924.1.Fig	1924	–	184,25	113,00	0,619849	0,001815
<i>Ferme Bretonne et Étude des Têtes</i> G. II no. 58	1893	–	64,74	39,00	0,624060	0,006026
<i>Jeune Bretonne assise</i> G. II no. 68	1894	–	63,25	40,00	0,612591	-0,005443
<i>Petite Quimperoise</i> C.R. C-012.Fig	1899	Masson pl. 15	177,33	118,00	0,600447	-0,017587
<i>Le recueillement</i> G. II no. 101	1904	–	68,00	42,50	0,615385	-0,002649
<i>L’apparition de la Vierge</i> G. II no. 110	1906	–	91,75	56,00	0,620981	0,002947
<i>Notre-Dame des Portes</i> G. II no. 118	1907	–	75,00	47,00	0,614754	-0,003280
<i>Paysage mauve a Chateauneuf du Faou</i> G. II no. 126	1909	–	69,25	42,75	0,618304	0,000270
<i>Les Tétraèdres</i> G. II no. 135	1910	G. II p. 60	212,75	129,75	0,621168	0,003134
<i>Marthe et Marie ou la Meilleure Part</i> G. II no. 171	1913	–	88,00	55,00	0,615385	-0,002649
<i>Deux Femmes dans une Allée</i> G. II no. 176	1913	–	59,33	37,00	0,615904	-0,002130
<i>L’arbre mort</i> G. II no. 177	1913	–	72,75	44,50	0,620469	0,002435
<i>Marguerite Sérusier</i> G. II no. 185	1913	–	81,00	49,00	0,623077	0,005043
<i>Jeune Femme relevant ses cheveux</i> G. II no. 192	1914	–	74,75	46,00	0,619048	0,001014
<i>Village aux Toits Rouges</i> à Travers les Abres. G. II no. 201	1914	–	87,33	54,00	0,617916	-0,000118
<i>Les Dahlias</i> G. II no. 205	1915	–	81,00	50,00	0,618321	0,000287
<i>Les Pavots</i> G. II no. 209	1915	G. II p. 66	180,00	110,00	0,620690	0,002656
<i>Le Bouddha englouti</i> C.R. C-022.Rel	1916	G. II p. 68 Égastère	213,00	127,75	0,625092	0,007058
<i>Paysage de Forêt</i> G. II no. 213	1917	–	237,75	145,00	0,621163	0,003129
<i>Les Demoiselles</i> G. II no. 220	1917	–	63,00	38,00	0,623762	0,005728
<i>Le Potager</i> G. II no. 221	1917	–	63,00	40,00	0,611650	-0,006384
<i>Les Rochers</i> G. II no. 227	1918	–	60,00	38,75	0,607595	-0,010439
<i>Les Mages</i> G. II no. 232	1919	–	64,00	38,00	0,627451	0,009417
<i>La Crèche</i> G. II no. 233	1919	–	63,80	37,00	0,632937	0,014903
<i>Les Bergers</i> G. II no. 234	1919	–	63,75	37,50	0,629630	0,011596
<i>L’Annonciation</i> G. II no. 235	1919	G. II p. 74	213,00	125,75	0,628782	0,010748
<i>Les Fileuses</i> G. II no. 250	1920	BT Bret. p. 112	184,75	113,00	0,620487	0,002453
<i>La Guirlande de Primavères</i> G. II no. 259	1922	G. II p. 76	212,75	133,75	0,613997	-0,004037
<i>Les Roses</i> G. II no. 266	1924	–	77,50	49,00	0,612648	-0,005386

Abbreviations:
C.R. *see* Comité Paul Sérusier. *Catalogue raisonné de l’oeuvre*
ABC Peinture *see* Denis (1942)
Ergastère *see* Sérusier (1995).
G. I *see* Guicheteau (1976).
G. II *see* Guicheteau (1989).

Abbreviations (cont):
BT UMI *see* Boyle-Turner (1883)
BT Bret. *see* Boyle-Turner (1995)
BT Peintre. *see* Boyle-Turner (1988)
Masson *see* Masson (1991)
Morlaix *see* Sérusier (1987).

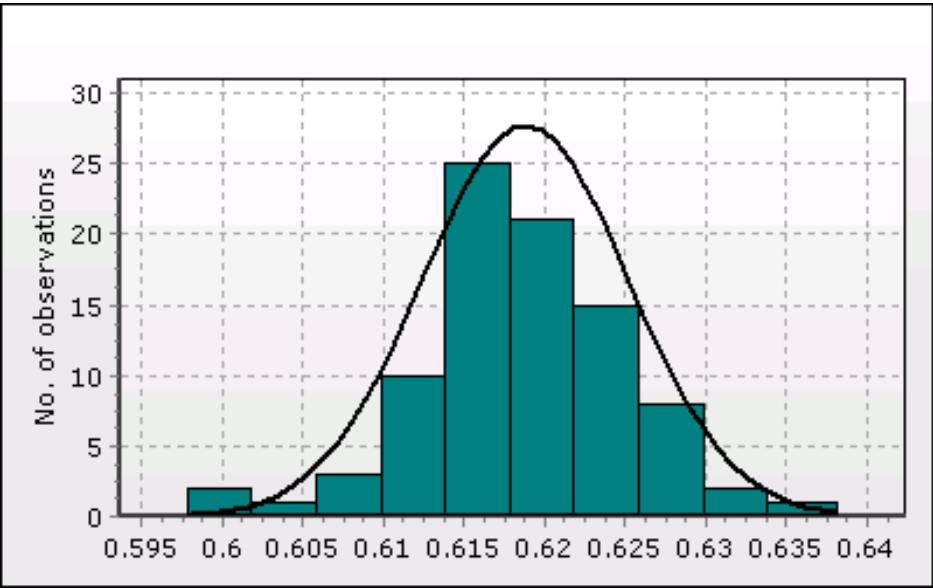
Figure 9.3 Paul Sérusier: *Golden Rectangle Format* – estimates of the longer/(longer + shorter) borders in 88 artworks ranging over the period 1890 – 1924. Works where the longer border is shown in bold figures (column 4) indicate that the work is in a vertical GR format, the remaining (non-boldface) works being in horizontal GR format. All measurements were made by hand on large coloured images when available (column 3). A dash indicates that (in the absence of large colour photographs) measurements were made directly on smaller black and white photos from G. I and G. II. For further information, see the accompanying text and the following Figure .

Title of Painting and Catalogue Number:	Date:	Image Source:	Units	Horizontal Border	Vertical Border	Longer/Shorter Length	Estimate of φ	Devn. from φ
<i>Petite Bretonne</i>	1888	internet	pixels	308,00	350,00	1,136364	0,637681	0,019647
<i>Interieur à la Lampe</i> C.R. N-001.Fig	1888	internet	pixels	340,00	280,00	1,214286	0,622222	0,004188
<i>Le Tisserand</i> G. I no. 1	1888	internet	pixels	1123,00	1400,00	1,246661	0,616018	-0,002016
<i>Interieur a Pont Aven</i> C.R. p-1888.1Fig	1888	internet	pixels	866,00	1092,00	1,260970	0,613314	-0,004720
<i>Le Concert</i>	1880's?	internet	pixels	283,00	350,00	1,236749	0,617904	-0,000130
<i>Portrait de Mai Chapp</i> G. I no. 3	1889	internet	pixels	372,00	448,00	1,204301	0,624161	0,006127
<i>La Mer au Pouldu</i> G. II no. 15	1889-90	internet	pixels	1129,00	924,00	1,221861	0,620759	0,002725
<i>La Petite tricoteuse/La Savoyarde</i> C.R. p-1890.1.Fig	1890	internet	pixels	449,00	371,00	1,210243	0,623006	0,004972
<i>La Barrière fleurie</i> C.R. p-1889.2.Fig	1889-90	internet	pixels	475,00	577,00	1,214737	0,622135	0,004101
<i>Bretonne descendant au Lavoir</i> C.R. p-1890.3.Pay	1890	BT Bret p 44	mm	119,00	93,00	1,279570	0,609836	-0,008198
<i>Jeune bretonne au bord de la rivière</i> C.R. p-1890.2.Pay	1890	internet	pixels	600,00	474,00	1,265823	0,612403	-0,005631
<i>Le chemin du village</i> G. II no.24	1890	internet	pixels	1024,00	804,00	1,273632	0,610942	-0,007092
<i>La Ferme jaune au Pouldu</i> G. II no 17	1890	internet	pixels	1110,00	907,00	1,223815	0,620383	0,002349
<i>Mère et Enfant dans un Paysage Breton</i>	1890	internet	pixels	915,00	1111,00	1,214208	0,622237	0,004203
<i>La Barrière</i> C.R. p-009.Pay	1890	internet	pixels	728,00	590,00	1,233898	0,618449	0,000415
<i>Deux Paysannes au Travail</i> G. I no 27	1890	internet	pixels	468,00	600,00	1,282051	0,609375	-0,008659
<i>Les deux Bretonnes sous le Pommier en fleurs</i> C.R. H-025.Fig	1890	internet	pixels	831,00	1024,00	1,232250	0,618764	0,000730
<i>Les Jeunes Bretonnes a la Source</i> C.R. p-005.Fig	1890	G II	mm	154,00	191,00	1,240260	0,617234	-0,000800
<i>Louise, la servante bretonne</i> C.R. H-023.Fig	1890	BT Bret p 59	mm	184,00	224,75	1,221467	0,620835	0,002801
<i>Louise, la servante bretonne</i> G.II no.29	1890	internet	pixels	822,00	1024,00	1,245742	0,616192	-0,001842
<i>La Cueillette de genêt</i> G.I no. 8	c 1890	internet	pixels	768,00	978,00	1,273438	0,610979	-0,007055
<i>Jeune Bretonne au Bord de la Rivière</i> C.R.p-1890.2.Pay	c. 1890	internet	pixels	1024,00	812,00	1,261084	0,613293	-0,004741
<i>Les Ramasseuses de Fougères</i> G.I no. 127	c. 1890	internet	pixels	1024,00	830,00	1,233735	0,618480	0,000446
<i>Nature morte dans l'atelier de l'artiste</i> C.R. H-1891.5.Nat	1891	internet	pixels	731,00	600,00	1,218333	0,621440	0,003406
<i>Rochers à Huelgoat</i>	1891	internet	pixels	154,00	192,00	1,246753	0,616000	-0,002034
<i>Les Jeunes Mères</i> G. I no 50	1891-3	G.I p.33	mm	94,50	119,50	1,264550	0,612642	-0,005392
<i>Les Jeunes Baigneuses dans la Forêt</i> G. I no 48.	1891-3	Ergastère	mm	145,25	176,50	1,215146	0,622056	0,004022
<i>Le Square au Réverbère</i> C.R. H-031.Pay	1891-3	internet	pixels	827,00	990,00	1,197098	0,625567	0,007533
<i>Jeune Bretonne à la cruche</i> C.R. H-1892.2.Fig	1892	internet	pixels	780,00	982,00	1,258974	0,613690	-0,004344
<i>Les Ramasseuses de Fougères</i> G. II no. 236	1892	internet	pixels	874,00	1024,00	1,171625	0,630592	0,012558
<i>Les Ramasseuses de Bois Mort</i>	1892	Ergastère	mm	145,00	183,50	1,265517	0,612460	-0,005574
<i>Bretonne allaitant</i> G. I no. 62	1892/93	BT Bret p 137	mm	170,00	224,50	1,320588	0,602303	-0,015731
<i>La Coiffe enlevée</i> C.R. H-1891.2.Fig	1891-3	BT Bret p 71	mm	181,00	224,50	1,240331	0,617221	-0,000813
<i>Trois Bretonnes marchant sur la grève</i> G. I no. 69	1892/93	internet	pixels	600,00	453,00	1,324503	0,601594	-0,016440
<i>Le Marché ou La Marchande de Poterie</i> G. I no. 64	1892/93	Morlaix	mm	169,25	209,75	1,239291	0,617419	-0,000615
<i>La Femme au bouquet</i> C.R. H-006.Fig	1892	internet	pixels	770,00	970,00	1,259740	0,613546	-0,004488
<i>L'Averse</i> C.R. H-027.Fig	1892	internet	pixels	822,00	1035,00	1,259124	0,613662	-0,004372
<i>Madelaine à l'Offrande</i>	1892	internet	pixels	846,00	1024,00	1,210402	0,622975	0,004941
<i>Quatre Jeunes Bretonnes dans la Forêt</i> G. I no 57	1892	internet	pixels	815,00	1024,00	1,256442	0,614167	-0,003867
<i>Le Grande Rocher</i> G.I no. 53	1893	internet	pixels	1024,00	808,00	1,267327	0,612121	-0,005913
<i>Bretonne au Fichu Jaune</i>	c. 1892	internet	pixels	827,00	1024,00	1,238210	0,617625	-0,000409
<i>Femme bretonne au drap blanc</i>	c. 1892	internet	pixels	1024,00	873,00	1,172967	0,630325	0,012291
<i>Autoportrait symboliste et prophétique</i>	1892/93	internet	pixels	889,00	1024,00	1,151856	0,634547	0,016513
<i>Paysan aux trois Vaches</i> G. I no. 77	1893	internet	pixels	1058,00	876,00	1,207763	0,623488	0,005454
<i>Les Mangeurs de Serpents</i> C.R. C-1894.2.Fig	1893	GI p.51	mm	146,75	115,75	1,267819	0,612029	-0,006005
<i>Dévotion à Saint Herbot – Le Pardon</i> G. I no. 85	1893	internet	pixels	350,00	281,00	1,245552	0,616228	-0,001806
<i>Bretonnes à la Fontaine de Châteauneuf</i> G. I no. 81	1893-4	internet	pixels	1024,00	841,00	1,217598	0,621582	0,003548
<i>Le bébé et les grands soeurs</i> C.R. H-1893.1.Fig	1893	internet	pixels	600,00	453,00	1,324503	0,601594	-0,016440
<i>Le Feu dehors ou Les Mammou</i> G. I no. 78	1893	internet	pixels	1024,00	801,00	1,278402	0,610053	-0,007981
<i>La Pluie sur la Route</i> G. I no. 91	1893	internet	pixels	287,00	350,00	1,219512	0,621212	0,003178
<i>Bretonnes</i>	1893	internet	pixels	210,00	168,00	1,250000	0,615385	-0,002649
<i>La Marchande de Bonbons</i>	1893-4	internet	pixels	788,00	1024,00	1,299492	0,606154	-0,011880
<i>La Vieille du Pouldu</i> C.R. C-009.Fig	1895	internet	pixels	400,00	330,00	1,212121	0,622642	0,004608
<i>Lessive au Grand Pré</i> G. II no.61	1894	internet	pixels	1024,00	810,00	1,264198	0,612708	-0,005326
<i>Vieille Servante Bretonne écaillant les Poissons</i> G. II no 64	1894-95	G.II	mm	154,00	191,00	1,240260	0,617234	-0,000800
<i>Jeunes Bretonnes</i>	1894	internet	pixels	1024,00	882,00	1,160998	0,632712	0,014678
<i>Sous la Lampe</i> C.R. H-003.Nat	c. 1894	internet	pixels	600,00	476,00	1,260504	0,613402	-0,004632
<i>La Vache Blanche</i> C.R. C-016.Pay	1894-95	Comité Serusier	mm	158,00	129,75	1,217726	0,621557	0,003523
<i>Le Pèlerinage à Notre-Dame des Portes</i> C.R. C-010.Fig	1894-95	internet	pixels	239,00	300,00	1,255230	0,614396	-0,003638
<i>Prière à la Vierge</i> C.R. C-002.Rel	from 1894	internet	pixels	350,00	280,00	1,250000	0,615385	-0,002649
<i>Les deux Bretonnes à l'oiseau bleu</i> C.R. C-024.Moy	from 1894	Comité Serusier	mm	154,75	123,50	1,253036	0,614810	-0,003224
<i>Les Filles de Douarnenez</i> C.R. C-1895.1.Fig	1895	internet	pixels	330,00	400,00	1,212121	0,622642	0,004608
<i>Le Ramassage des Pommés</i> G. I no 111	1895	internet	pixels	340,00	267,00	1,273408	0,610984	-0,007050
<i>Le Feu dans la Forêt</i> C.R. H-001.Pay	1895	G.I p.59	mm	129,75	164,00	1,263969	0,612751	-0,005283
<i>La Route aux Quatre Bretonnes</i> G.I no. 108	c. 1895	internet	pixels	825,00	1024,00	1,241212	0,617053	-0,000981
<i>Personnage au Clair de Lune</i>	c. 1895	internet	pixels	1024,00	830,00	1,233735	0,618480	0,000446
<i>Jeune Bretonne (la petite tricoteuse)</i> G.II no. 76	c. 1896	internet	pixels	848,00	1024,00	1,207547	0,623529	0,005495
<i>Paysage au Châteauneuf du Faou</i>	1897	internet	pixels	1024,00	798,00	1,283208	0,609160	-0,008874
<i>La Moisson</i> G. I no. 135	1898	G.I p.150	pixels	94,33	118,75	1,258878	0,613708	-0,004326
<i>Rochers dans la Forêt du Huelgoat</i>	c.1898	Ergastère	mm	145,00	177,75	1,225862	0,619989	0,001955

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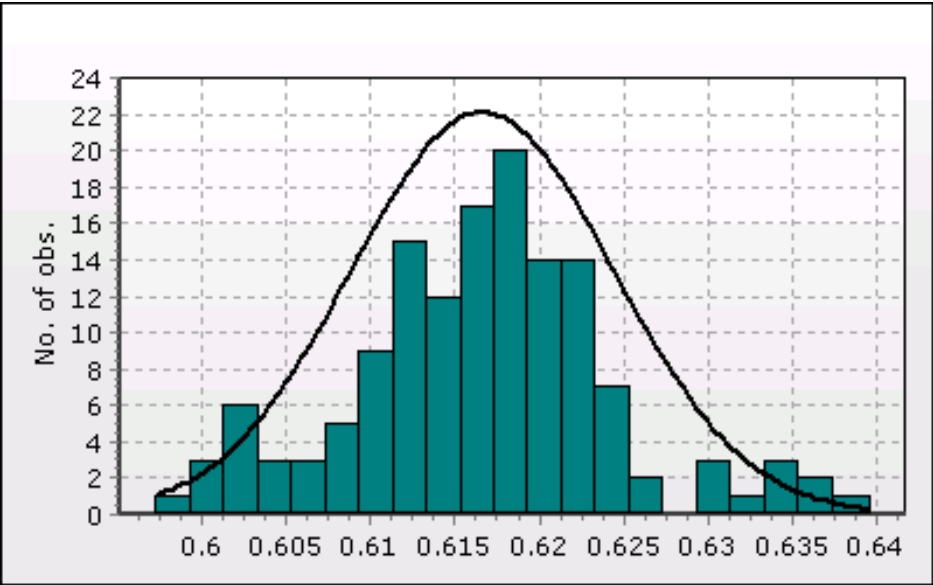
Title of Painting and Catalogue Number:	Date:	Image Source:	Units	Horizontal Border	Vertical Border	Longer/Shorter Length	Estimate of φ	Devn. from φ
<i>Mère et Enfants</i> G. II no. 85	1900	G.II	mm	154,00	194,00	1,259740	0,613546	-0,004488
<i>Portrait de Jan Verkade</i> G. I no. 161	1903	internet	pixels	485,00	600,00	1,237113	0,617834	-0,000200
<i>La Foire à Châteauneuf du Faou</i> G. I no. 163	1903	BT Peintre p 129	mm	212,00	269,00	1,268868	0,611833	-0,006201
<i>Les Trois Arbres au Bord du Sentier</i> C.R. C-003.Pay	1903	internet	pixels	1024,00	775,00	1,321290	0,602176	-0,015858
<i>Nature morte aux Roseaux, Primavères et Maïs</i> C.R. C-1904.1.Nat	1904	Comité Sérusier	pixels	638,00	512,00	1,246094	0,616125	-0,001909
<i>Paysage aux arbustes jaunes</i> G.I no. 102	1904	internet	pixels	833,00	1024,00	1,229292	0,619331	0,001297
<i>Légende bretonne, Saint-Tryphine</i> G.I no. 175	1904	internet	pixels	1024,00	816,00	1,254902	0,614458	-0,003576
<i>Les Deux Petites Bretonnes à la bolée de soupe</i> G. I no. 188	1905	Morlaix p.49	mm	90,00	72,75	1,237113	0,617834	-0,000200
<i>Sous-Bois au Huelgoat</i> G. I no. 186	1905	internet	pixels	748,00	901,00	1,204545	0,624113	0,006079
<i>Les Champignons</i> G. I no. 194	1904	internet	pixels	1024,00	833,00	1,229292	0,619331	0,001297
<i>Le Pêcheur à la Laïta</i> G. II no. 30	1905	internet	pixels	778,00	1015,00	1,304627	0,605212	-0,012822
<i>Enfants au Bain</i> C.R. C-1906.2.Fig	1906	internet	pixels	470,00	383,00	1,227154	0,619741	0,001707
<i>Le Soir</i>	1906	internet	pixels	741,00	600,00	1,235000	0,618238	0,000204
<i>Vallée, Temps gris</i> C.R. C-1907.1.Pay	1907	Comité Sérusier	mm	112,50	136,00	1,208889	0,623269	0,005235
<i>Les Deux Sorcières</i> G. I no 222	1907	Morlaix	mm	109,75	89,75	1,222841	0,620570	0,002536
<i>La Diligence - Chemin de Compagne à la Carriole</i> G. I no. 165	1908	internet	pixels	1024,00	801,00	1,278402	0,610053	-0,007981
<i>Les Apprêts du Festin</i> G.I no. 237	1908	G.I p.131	mm	94,50	117,50	1,243386	0,616639	-0,001395
<i>Jeunes Femmes éffeuillant des Fleurs</i>	c.1908	internet	pixels	1024,00	811,00	1,262639	0,613001	-0,005033
<i>Les Roses</i> G. I no. 255	1909	internet	pixels	408,00	500,00	1,225490	0,620061	0,002027
<i>Dance Champêtre</i> G. I no. 262	1909	G.I p.123	mm	191,00	156,25	1,222400	0,620655	0,002621
<i>Composition aux Pommes et aux Plantes Sauvages</i> G. I no. 271	1910	internet	pixels	829,00	1024,00	1,235223	0,618195	0,000161
<i>Promenade dans le Bois</i> G. I no. 276	1910	Ergastère	mm	145,00	187,00	1,289655	0,607966	-0,010068
<i>La Dame à la Rose</i> G. I no. 273	1910	internet	pixels	350,00	288,00	1,215278	0,622030	0,003996
<i>Mignonne, allons voir si la Rose</i>	1910	internet	pixels	768,00	1024,00	1,333333	0,600000	-0,018034
<i>Bretonne au Champ de Blé</i> G. I no. 150	c. 1910	internet	pixels	776,00	615,00	1,261789	0,613161	-0,004873
<i>La Brodeuse de Châteauneuf du Faou</i> G. I no. 285	1910	internet	pixels	1024,00	852,00	1,201878	0,624633	0,006599
<i>Les Pommiers en Fleurs</i> G. I no. 277	c. 1910	internet	pixels	1024,00	839,00	1,220501	0,621021	0,002987
<i>Jeunes Filles au bain</i>	c. 1911-1914	internet	pixels	830,00	1024,00	1,233735	0,618480	0,000446
<i>Composition aux Oeillets et aux Prunes</i>	1912	internet	pixels	1024,00	830,00	1,233735	0,618480	0,000446
<i>Fleurs et Poirs rouges</i> G.I no. 297	1912	internet	pixels	810,00	1024,00	1,264198	0,612708	-0,005326
<i>Valée verte</i> C.R. C-1912.1.Pay	1912	internet	pixels	688,00	542,00	1,269373	0,611738	-0,006296
<i>Rochers au Pouldu</i> G. II no. 187	1913	G.II p.64	mm	154,25	125,75	1,226640	0,619840	0,001806
<i>Le Christ de Saint Hildegarde</i> C.R. C-038.Rel	1914	internet	pixels	215,00	273,00	1,269767	0,611664	-0,006370
<i>Les Animaux légendaires</i> G. I no. 368	1917	internet	pixels	831,00	1024,00	1,232250	0,618764	0,000730
<i>La Couronneuse</i> G. I no. 372	1917	internet	pixels	852,00	1024,00	1,201878	0,624633	0,006599
<i>Printemps au Chateauneuf, Les bords de l'Aulne</i> G.I no.77	1917	internet	pixels	1024,00	837,00	1,223417	0,620460	0,002426
<i>Paysage d' Automne</i>	c. 1917	internet	pixels	773,00	1024,00	1,324709	0,601556	-0,016478
<i>Les Heures</i> G. I no. 387	1919	internet	pixels	1211,00	969,00	1,249742	0,615433	-0,002601
<i>La Veuve</i> G. I no. 381	1919	internet	pixels	693,00	862,00	1,243867	0,616548	-0,001486
<i>Les Jeunes Élèves</i> G. I no. 395	1920	internet	pixels	123,00	150,00	1,219512	0,621212	0,003178
<i>Jeune Femme au Pavot</i> G. II no. 251	1920	internet	pixels	763,00	1024,00	1,342071	0,598431	-0,019603
<i>Le Broyeur de Couleurs</i> G. II no. 254	1921	internet	pixels	1024,00	831,00	1,232250	0,618764	0,000730
<i>Le Concert</i> G. I no. 404	1921	internet	pixels	332,00	400,00	1,204819	0,624060	0,006026
<i>Poirs et Prunes</i> G. II no. 261	1923	internet	pixels	1024,00	769,00	1,331599	0,600312	-0,017722
<i>Le Bouquet d'Anémones</i>	1923	internet	pixels	392,00	500,00	1,275510	0,610592	-0,007442
<i>Dans la Forêt de Broceliande</i> G.I no. 98	n.d.	internet	pixels	1024,00	823,00	1,244228	0,616479	-0,001555
<i>Jeune Fille au Vase de Fleurs</i> G. I no. 281	n.d.	internet	pixels	831,00	1024,00	1,232250	0,618764	0,000730
<i>Chaumière dans un Paysage d' Automne</i>	n.d.	internet	pixels	826,00	1024,00	1,239709	0,617339	-0,000695
<i>Le Petit Chien d'Yseult</i> G. I no. 299	n.d.	internet	pixels	1024,00	828,00	1,236715	0,617910	-0,000124
<i>Madame Sérusier à l'Ombrelle</i> G. I no. 322	n.d.	internet	pixels	1024,00	824,00	1,242718	0,616766	-0,001268
<i>La Mer au Pouldu, crépuscule</i>	n.d.	internet	pixels	1024,00	843,00	1,214709	0,622140	0,004106
<i>Paysage à Châteauneuf du Faou</i>	n.d.	internet	pixels	1024,00	836,00	1,224880	0,620178	0,002144
<i>Eve endormie</i> G. II no. 9	n.d.	internet	pixels	1024,00	787,00	1,301144	0,605851	-0,012183
<i>Nature morte aux Oignons</i> G.I no. 124	n.d.	internet	pixels	1024,00	776,00	1,319588	0,602484	-0,015550
<i>La Musique</i> G. I no. 266	n.d.	internet	pixels	826,00	1024,00	1,239709	0,617339	-0,000695
<i>Bretonne sous les Arbres en Fleur</i>	n.d.	internet	pixels	1024,00	796,00	1,286432	0,608563	-0,009471
<i>Paysage</i>	n.d.	internet	pixels	1024,00	772,00	1,326425	0,601246	-0,016788
<i>Pèlerinage</i>	n.d.	internet	pixels	786,00	1024,00	1,302799	0,605547	-0,012487
<i>Composition aux Noix et au Citron</i>	n.d.	internet	pixels	1024,00	800,00	1,280000	0,609756	-0,008278
<i>Nature morte à la Carafe</i> G.I no. 223	n.d.	internet	pixels	1024,00	894,00	1,145414	0,635846	0,017812
<i>Paysage au Champ vert à Châteauneuf du Faou</i>	n.d.	internet	pixels	1024,00	821,00	1,247259	0,615904	-0,002130
<i>Le Faneur, hommage à van Gogh</i>	n.d.	internet	pixels	1024,00	796,00	1,286432	0,608563	-0,009471
<i>Paysage d' Automne</i>	n.d.	internet	pixels	1024,00	801,00	1,278402	0,610053	-0,007981
<i>Portrait de jeune Bretonne</i>	n.d.	internet	pixels	827,00	1024,00	1,238210	0,617625	-0,000409
<i>La Cuisine</i>	n.d.	internet	pixels	1024,00	893,00	1,146697	0,635587	0,017553
<i>Etude pour le Troupeau dans la Forêt Noire</i>	n.d.	internet	pixels	1024,00	873,00	1,172967	0,630325	0,012291
<i>Portrait en buste de Marie Franciscaille</i>	n.d.	internet	pixels	891,00	1024,00	1,149270	0,635068	0,017034
<i>La Forêt</i>	n.d.	internet	pixels	782,00	1024,00	1,309463	0,604328	-0,013706
<i>Etude de Bretonnes</i>	n.d.	internet	pixels	888,00	1024,00	1,153153	0,634286	0,016252
<i>Les Trois Bretonnes & Rochers sur le Trieux</i>	n.d.	internet	pixels	1024,00	785,00	1,304459	0,605243	-0,012791
<i>Jeunes Femmes Bretonnes</i>	n.d.	internet	pixels	862,00	1024,00	1,187935	0,627365	0,009331
Abbreviations:								
C.R. see Comité Paul Sérusier. <i>Catalogue raisonné de l'oeuvre</i>		BT Bret. see Boyle-Turner (1995)						
Ergastère see Sérusier (1995).		BT Peintre. see Boyle-Turner (1995)						
G. I see Guicheteau (1976).		Morlaix see Sérusier (1987).						
G. II see Guicheteau (1989).								

Figure 9.4 Paul Sérusier: *Estimates of the Double Golden Rectangle Format* – the longer border/2 and the shorter border were used in calculating estimates of φ in 141 artworks ranging over the period 1888 – 1923. Measurements were predominantly read in pixels directly from images on the internet, or in a few cases measured in mm by hand from existing photographs. See text and the following figures for further information.



Sample size	88	Mean	0.618820
Standard Deviation	0.006385	Median	0.618262
Skewness	-0.125644	Kurtosis	3.642187
Alternative Skewness (Fisher's)	-0.127833	Alternative Kurtosis (Fisher's)	0.751636

	Test Statistics	p-level	Conclusion: (5%)
Kolmogorov-Smirnov/Lilliefor Test	0.039332	0.983302	No evidence against normality
Shapiro-Wilk W	0.983170	0.311810	Accept Normality
D'Agostino Skewness	0.5141940	0.607116	Accept Normality
D'Agostino Kurtosis	1.410546	0.158378	Accept Normality
D'Agostino Omnibus	2.254036	0.323997	Accept Normality



Sample size	141	Mean	0.616629
Standard Deviation	0.007773	Median	0.617234
Skewness	0.136939	Kurtosis	3.433963
Alternative Skewness (Fisher's)	0.138416	Alternative Kurtosis (Fisher's)	0.493546

	Test Statistics	p-level	Conclusion: (5%)
Kolmogorov-Smirnov/Lilliefor Test	0.041659	0.796155	No evidence against normality
Shapiro-Wilk W	0.975184	0.011409	Reject Normality
D'Agostino Skewness	0.692603	0.488558	Accept Normality
D'Agostino Kurtosis	1.222604	0.221479	Accept Normality
D'Agostino Omnibus	1.974461	0.372607	Accept Normality

Figure 9.5 Paul Sérusier: Plots of the estimates of ϕ for (above) 88 purported GEs (see Fig. 9.3) and (below) for 141 purported DGRs (see Fig. 9.4):.

Means for both sets of data were close to ϕ (i.e. 0.618820 and 0.616629 respectively) and both sets showed little or no evidence of deviation from the normal distribuion. Apart from slight subsidiary 'peaks' at approximately 0.60000 (5: 8) in each data set, the evidence here supports the proposition that the formatting of the 229 artworks reviewed results from the adjustment of their dimensions to achieve a GS proportion.

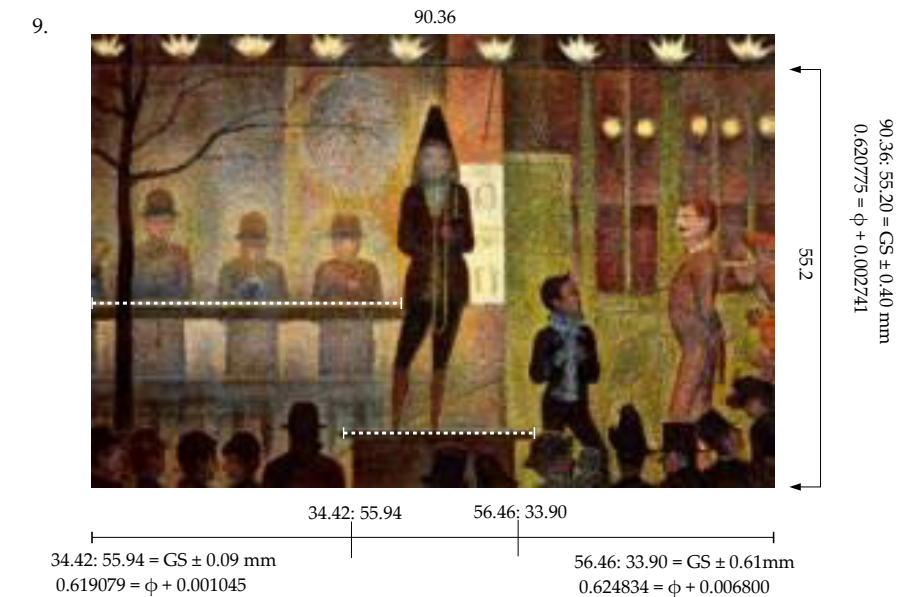
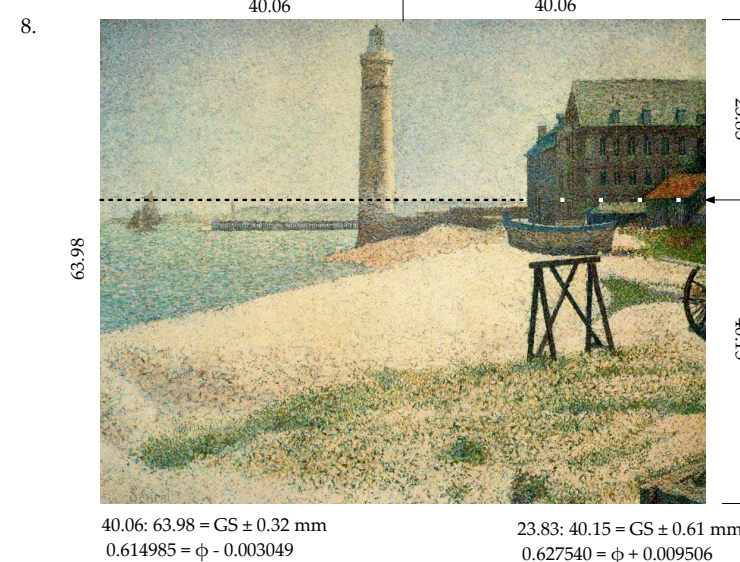
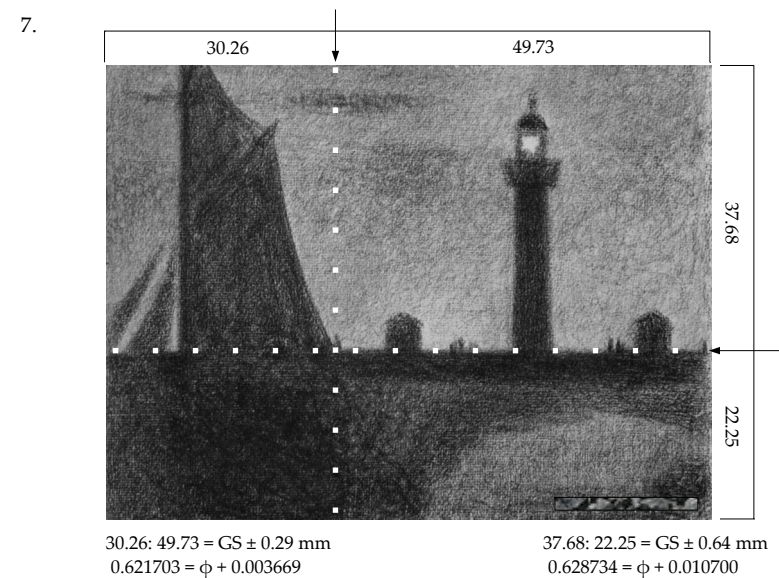
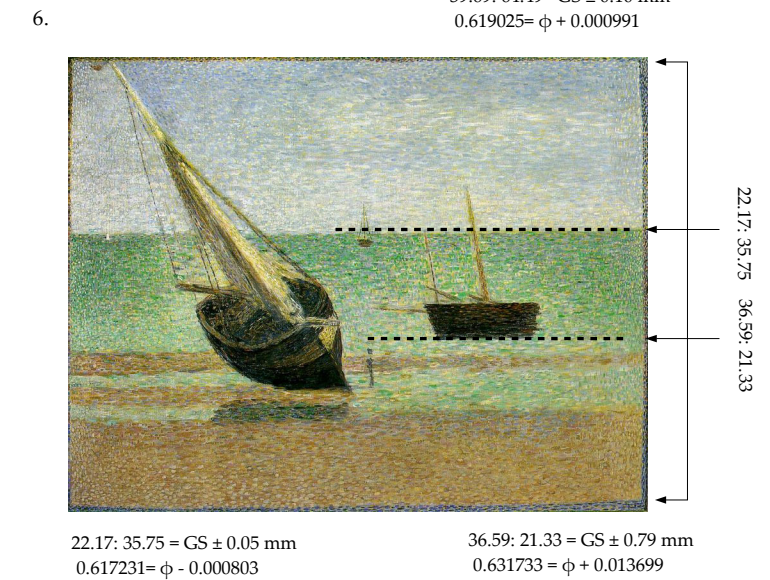
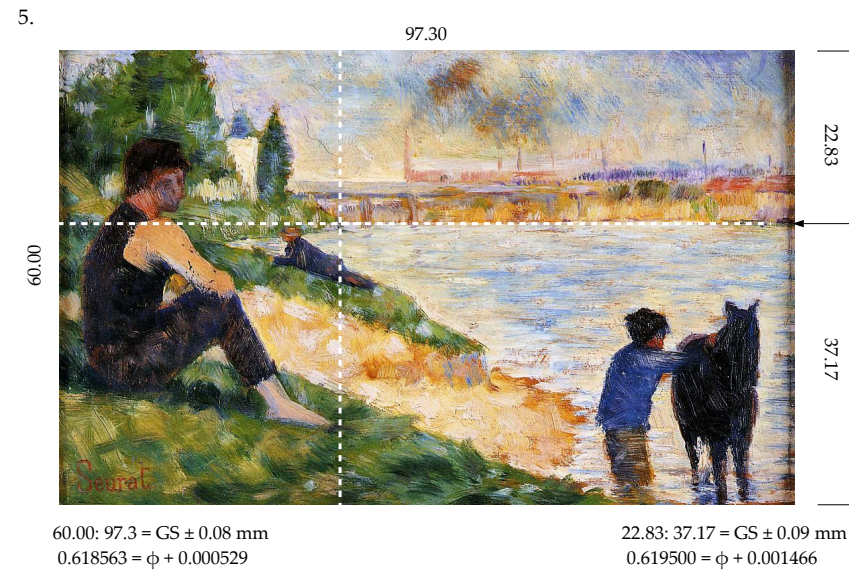
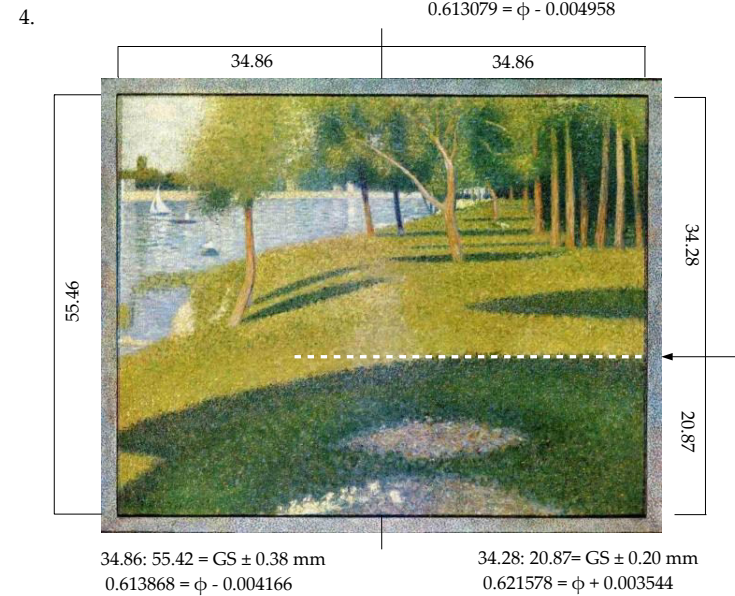
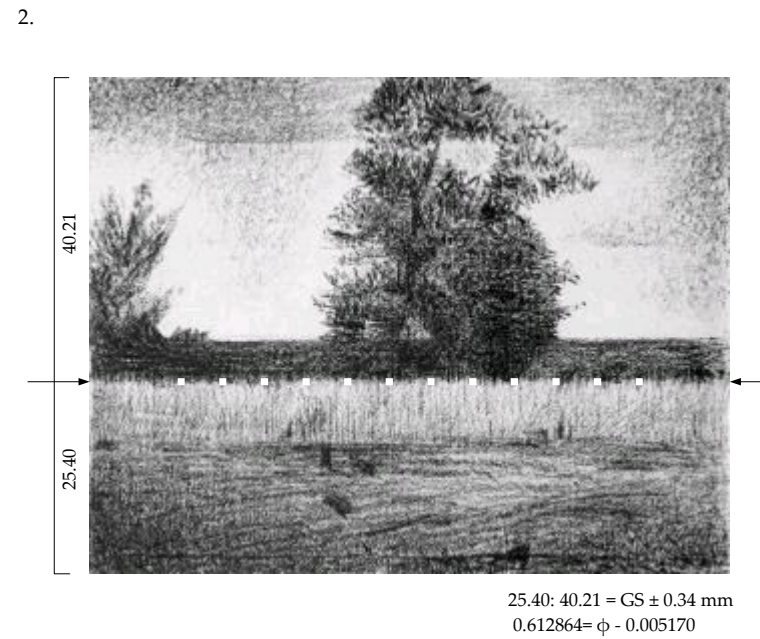
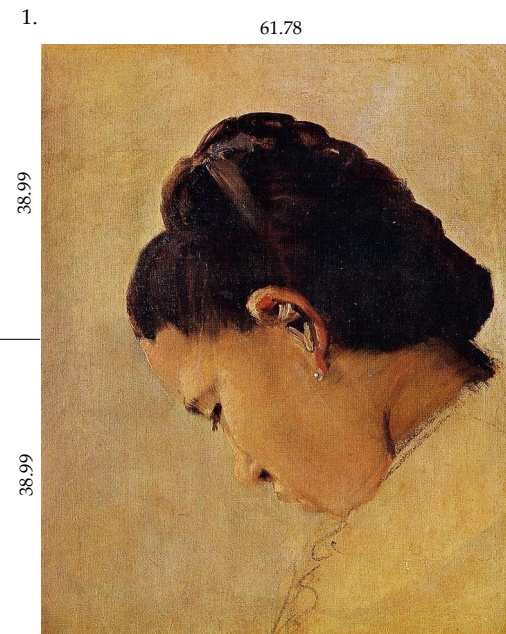


Plate 9.1 Georges Seurat: Examples of works using Golden Section strategies: (dotted lines indicate the positions of GS subdivision within a picture. See text for further details).

1. *Tête de jeune fille* – 1877-79 – DH 2* 2. *L'arbre* – c. 1881 – DH 451 3. *L'Invalide* – c. 1881 – DH 12
4. *Paysage, l'Île de la Grande Jatte* – 1884 – DH 131 5. *Le cheval noir* – c. 1883 – DH 88 6. *Bateaux marée basse, Grandcamp* – 1885 – DH 155
7. *Le phare de Honfleur* – 1886 – DH 164 8. *L'Hospice et le Phare de Honfleur* – 1886 – DH 173 9. *La Parade de Cirque* – 1888 – DH 187

*DH = catalogue number in: Hauke (1961).

1.



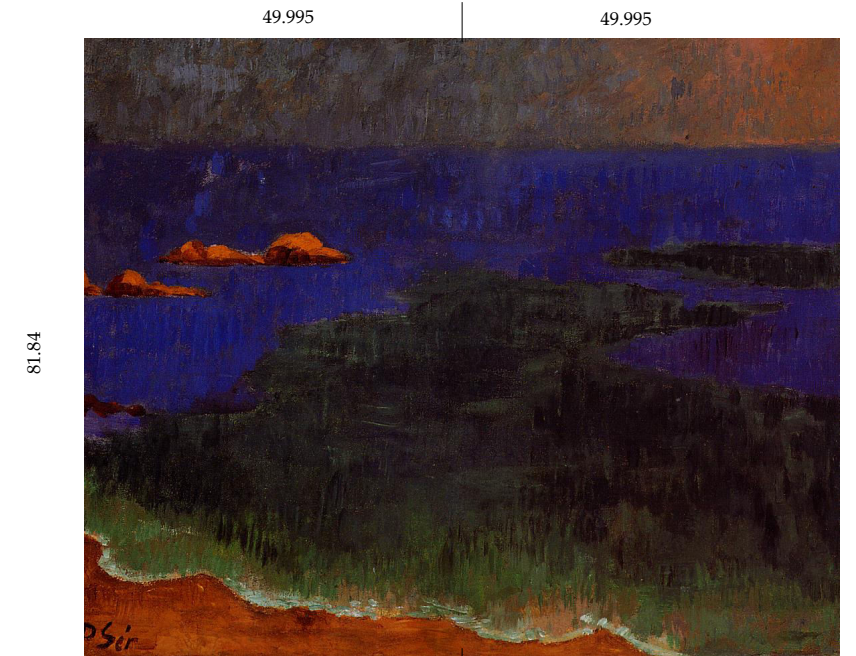
46.95: 77.26 = GS \pm 1.36 mm
 0.607342 = ϕ - 0.0106920

2.



47.475: 76.20 = GS \pm 0.24 mm
 0.616131 = ϕ - 0.001903

3.



49.995: 81.84 = GS \pm 0.36 mm
 0.620776 = ϕ + 0.002742

4.



49.97: 78.51 = GS \pm 0.90 mm
 0.611068 = ϕ - 0.006966

5.



47.475: 75.28 = GS \pm 0.59 mm
 0.613254 = ϕ - 0.004780

6.



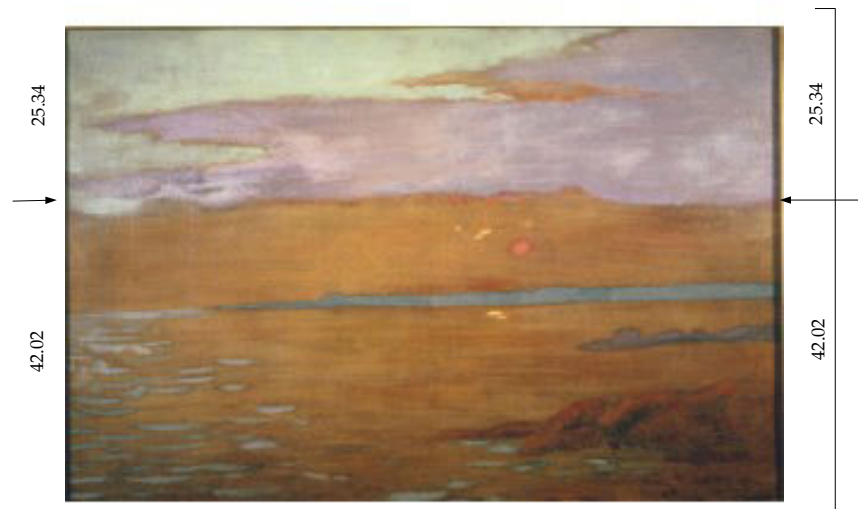
47.37: 73.54 = GS \pm 1.19 mm
 0.608221 = ϕ - 0.009813

Plate 9.2: Paul Sérusier: *Examples of early works in Double Golden Rectangle format* (1888 – 1890):

1. *Intérieur à la Lampe* – 1888 – CR N-001.Fig. 2. *Le Tisserand* – 1888 – G I no 1. 3. *La Mer au Pouldu, Crépuscule* – 1890 – G II no 15.

4. *La Cueillette du Genêt* – 1889 – G I no 8. 5. *La Savoyarde or Jeune Paysanne tricotant* – CR p-1890.1.Fig. 6. *Intérieur à Pont-Aven* – 1888 – CR p-1888.1.Fig.

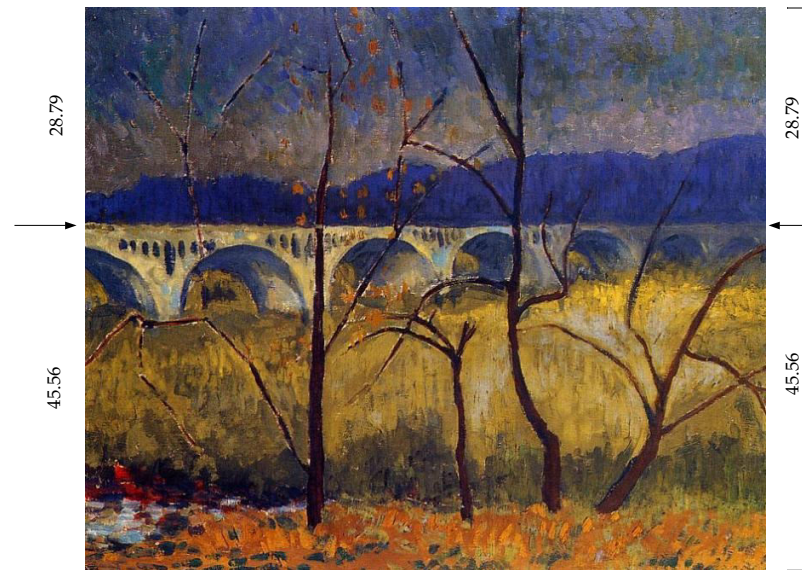
1.



$$25.34: 42.02 = GS \pm 0.39 \text{ mm}$$

$$0.623812 = \phi + 0.005778$$

2.



$$28.79: 45.56 = GS \pm 0.39 \text{ mm}$$

$$0.612777 = \phi - 0.005257$$

3.



$$26.25: 43.66 = GS \pm 0.45 \text{ mm}$$

$$0.624517 = \phi + 0.006483$$

4.



$$67.73: 43.39 = GS \pm 0.95 \text{ mm}$$

$$0.609521 = \phi - 0.008513$$

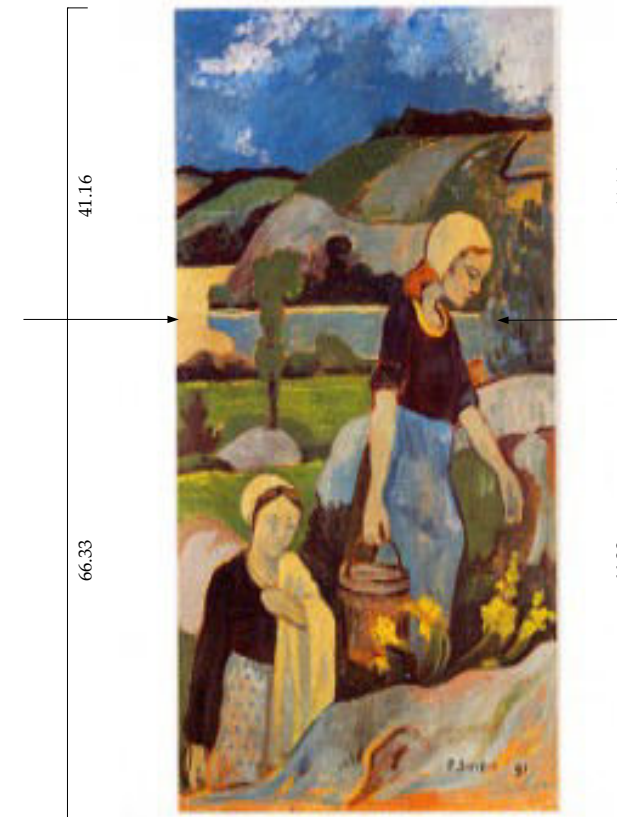
5.



$$24.58: 42.03 = GS \pm 0.86 \text{ mm}$$

$$0.630986 = \phi + 0.012952$$

6..



$$41.16: 66.33 = GS \pm 0.10 \text{ mm}$$

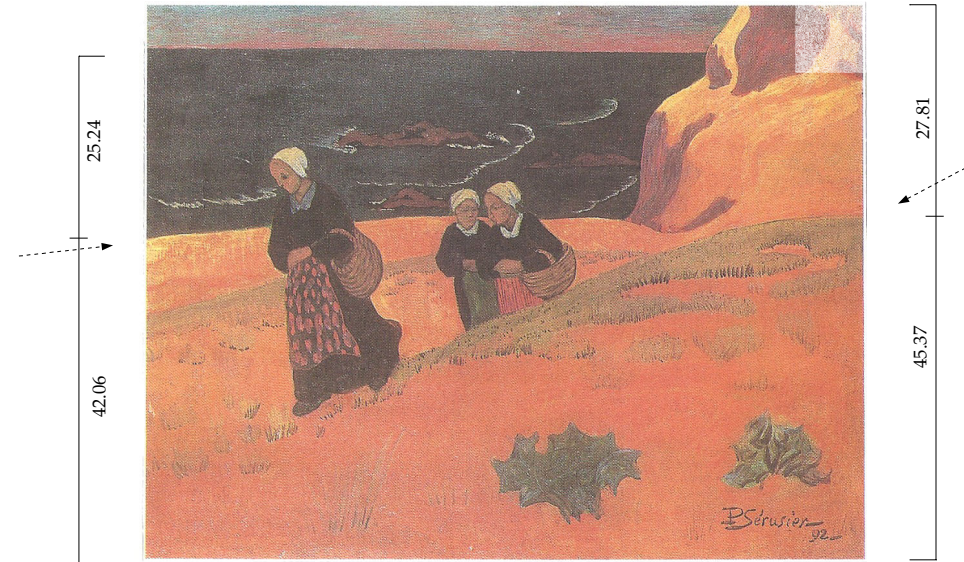
$$0.617081 = \phi - 0.000953$$

Plate 9.3 Paul Sérusier: *Horizontal lines arising from vertical-border GS points.* (An arrow indicates the level of a juncture and the point at which a horizontal line emerges along a vertical border. A second arrow, at the same height as the first, is shown on the opposite border):

1. *Marine* – after 1893 – CR C-025.Pay 2. *l'Acqueduc* – 1905 – G I no 185 3. *Les Laveuses au Bord de la Laïta* – c. 1890 – CR P-010.Fig

4. *Portrait de Marie Francisaille* – 1896 – CR C-1896.2.Fig. 5. *Les Origines* – 1910 – G I no 279 6. *Jeunes Lavandières Remontant de la Rivière* – 1891 – CR H-1891.3.Fig.

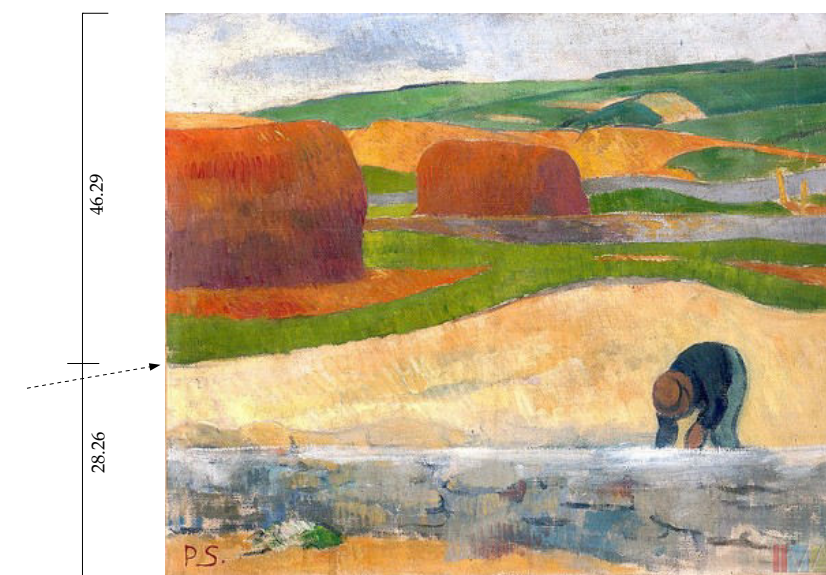
1.



$$25.24: 42.06 = GS \pm 0.46 \text{ mm}$$

$$0.630000 = \phi + 0.020000$$

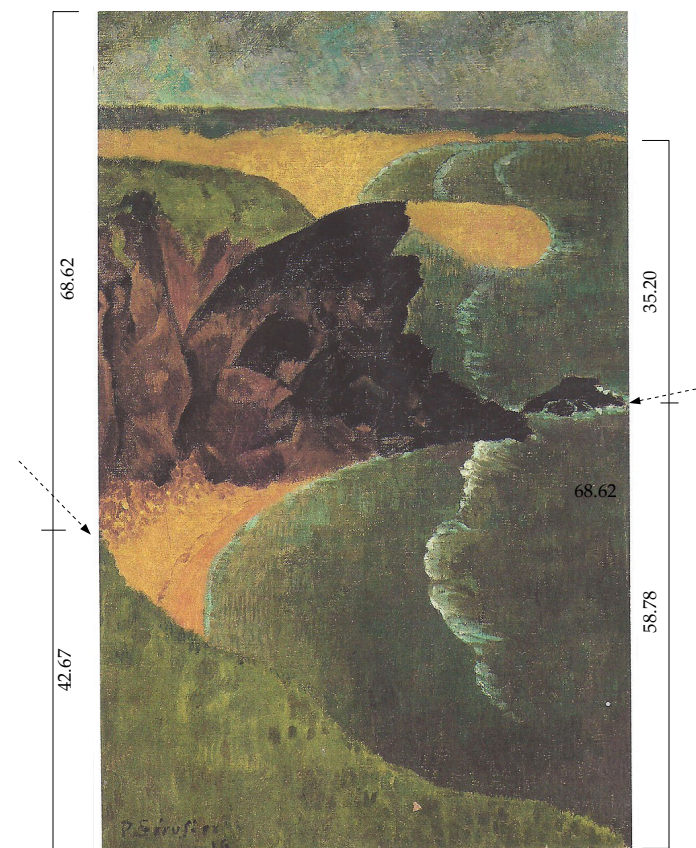
2.



$$28.26: 46.29 = GS \pm 0.29 \text{ mm}$$

$$0.620929 = \phi + 0.002893$$

3.



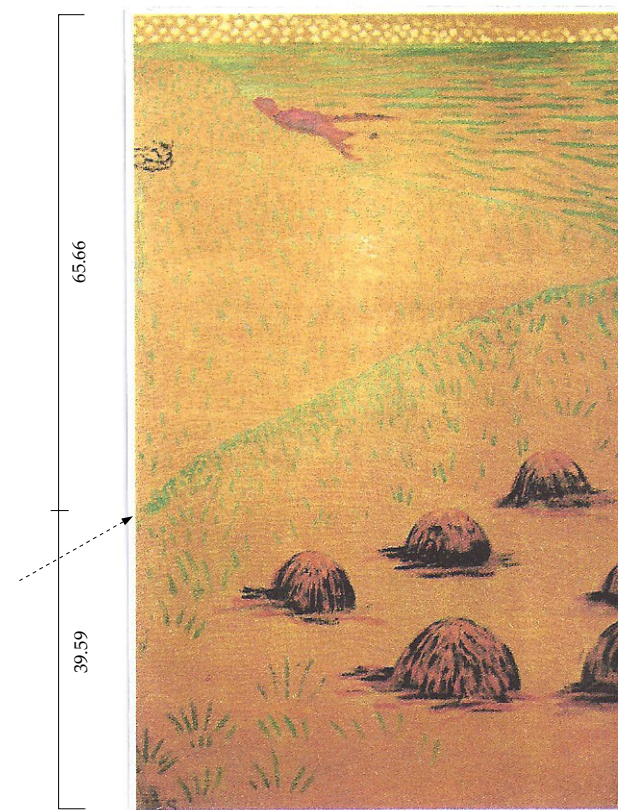
$$35.20: 58.78 = GS \pm 0.70 \text{ mm}$$

$$0.625452 = \phi + 0.007418$$

$$68.62: 42.67 = GS \pm 0.36 \text{ mm}$$

$$0.617697 = \phi - 0.000337$$

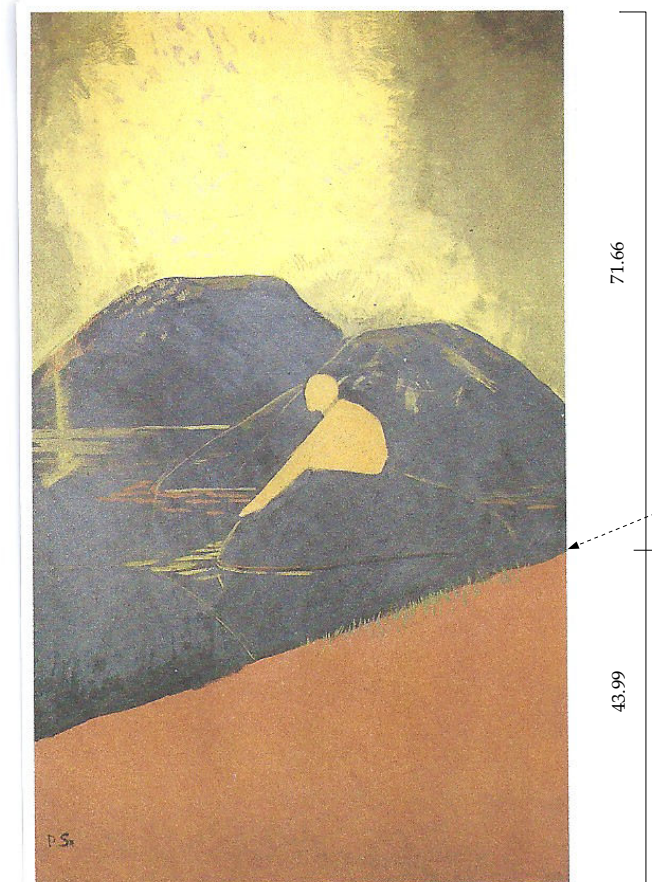
4.



$$65.66: 39.59 = GS \pm 0.61 \text{ mm}$$

$$0.623848 = \phi + 0.005814$$

5.



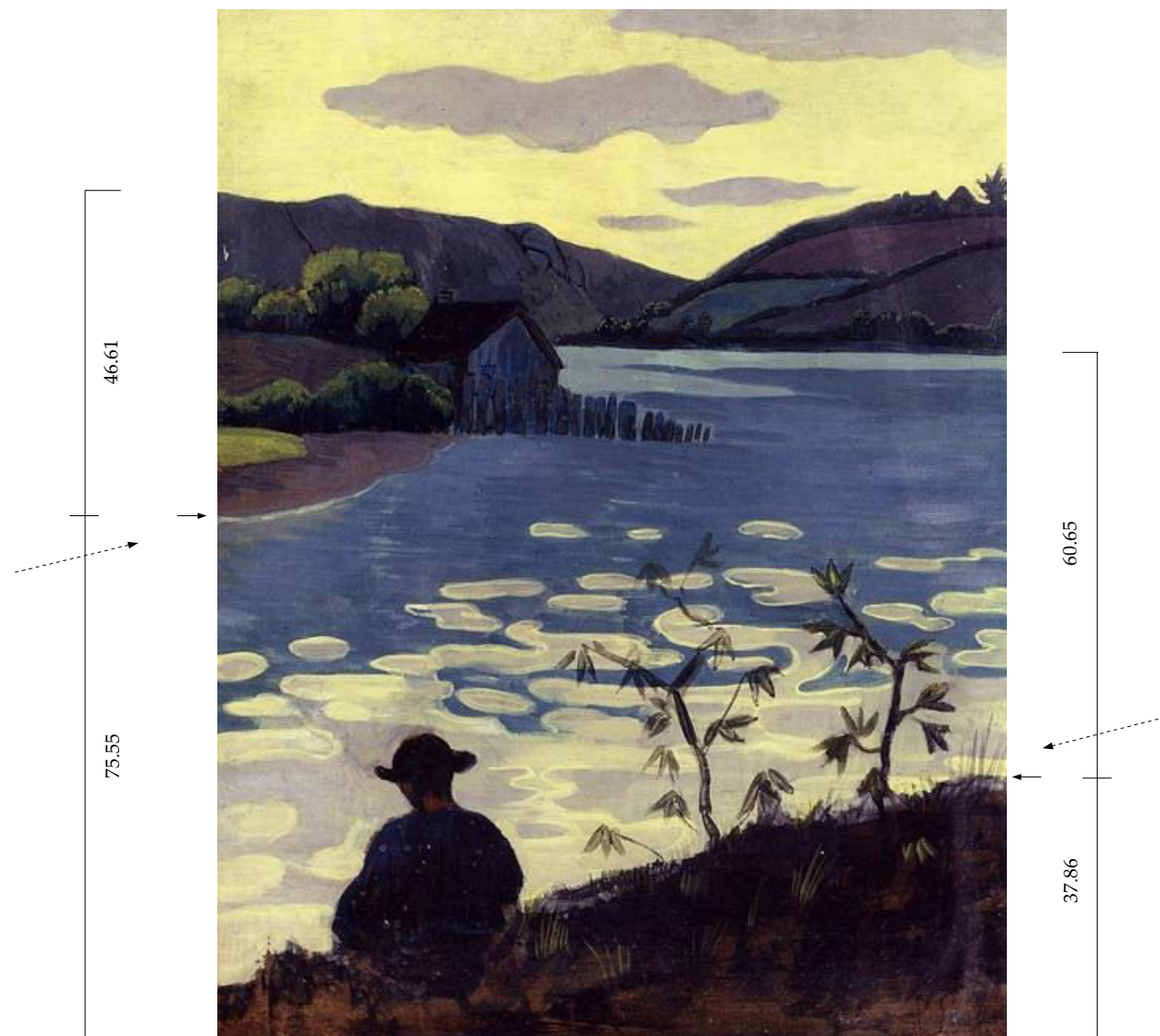
$$71.66: 43.99 = GS \pm 0.18 \text{ mm}$$

$$0.619628 = \phi + 0.001594$$

Plate 9.4 : Paul Sérusier: Ascending and descending lines or curves arising from vertical-border GS points. (Arrows indicate the approximate angle of deflection):

1. *Trois Bretonnes marchant sur la Grève* – 1892 – G I no 69 2. *Le Ramasseur de Goémon* – between 1888-90 – CR p-007.Pay

3. *Mer grise au Pouldu* – 1916 – (uncatalogued) 4. *Tas de Varech au Bord de la Mer* – 1890 G I no 36 5. *Jeune Fille au bord du Lac* – n.d. – (uncatalogued).



75.55: 46.61 = GS \pm 0.01 mm
 0.618107 = ϕ + 0.000073

37.86: 60.65 = GS \pm 1.01mm
 0.615674 = ϕ - 0.002360

Plate 9.5 Paul Sérusier: *Le Pêcheur à la Lâita* (1890 – G II no 30) showing two unrelated proportioning schemes, one aligned along each vertical border. Arrows in dotted lines indicate the approximate angle of lines or curves arising from GS points.



92.47: 55.66 = GS \pm 0.92 mm
 0.624249 = ϕ + 0.006215

47.73: 29.25 = GS \pm 0.15 mm
 0.620031 = ϕ + 0.001997

76.98: 48.91 = GS \pm 0.82mm
 0.611486 = ϕ - 0.006548

Plate 9.6 Paul Sérusier: *La Moisson* (after 1893 – CR C-054.Pay.) showing two unrelated proportioning schemes, one aligned along each vertical border. The 76.98 mm limb along the RH border shows subdivision by (Type I) GS. Arrows with dotted lines indicate the approximate angle of lines or curves arising from GS points.

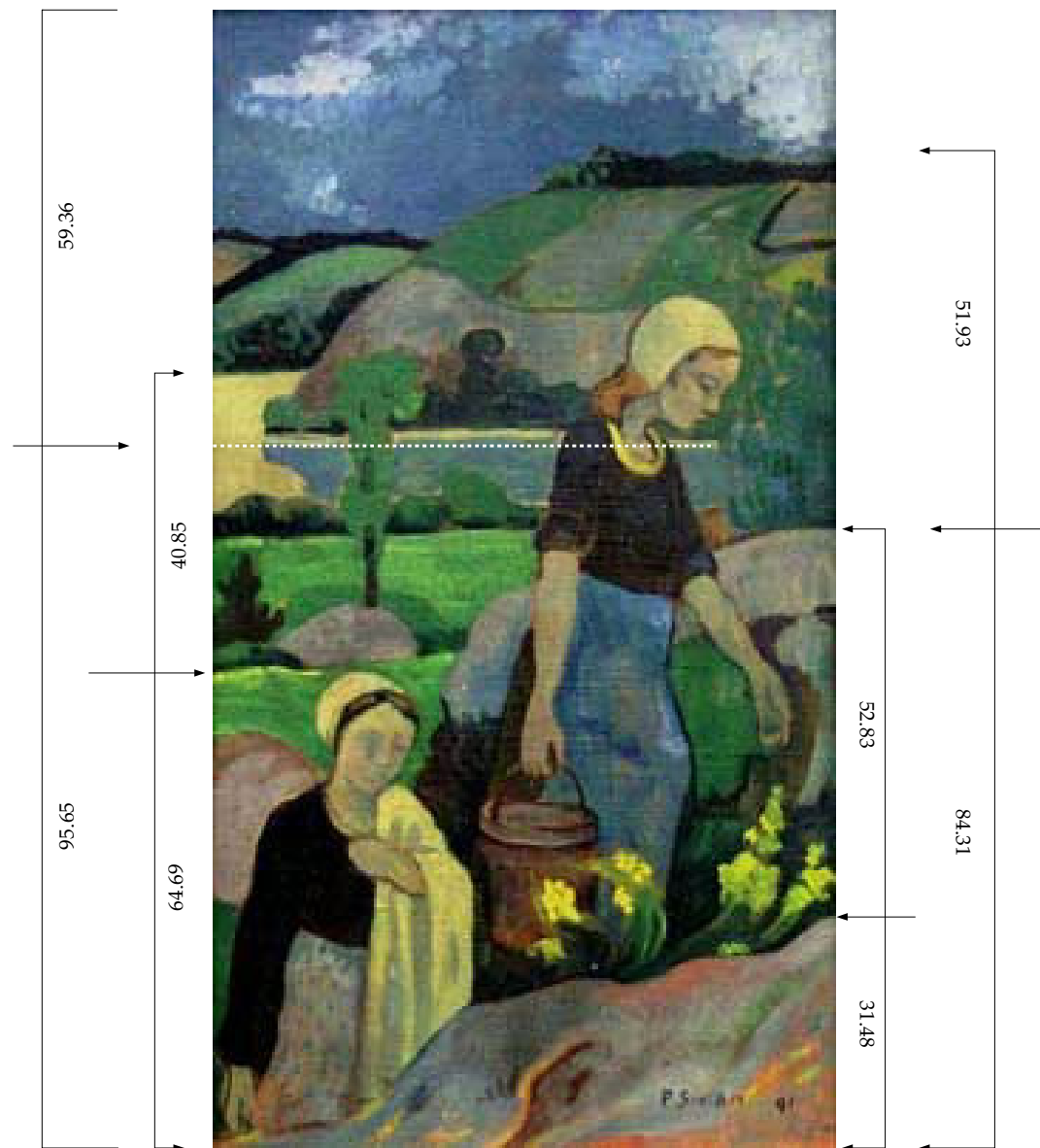


Plate 9.7 : Paul Sérusier: *Jeunes Lavandières Remontant de la Rivière* – (1891 – CR H-1891.3.Fig.) – showing three unrelated GS divisions, two along the LH and one along the RH vertical border. Note that the the RH division is further subdivided. The white dotted line indicates the primary GS division of the LH vertical border extended along the far lake and shore line.

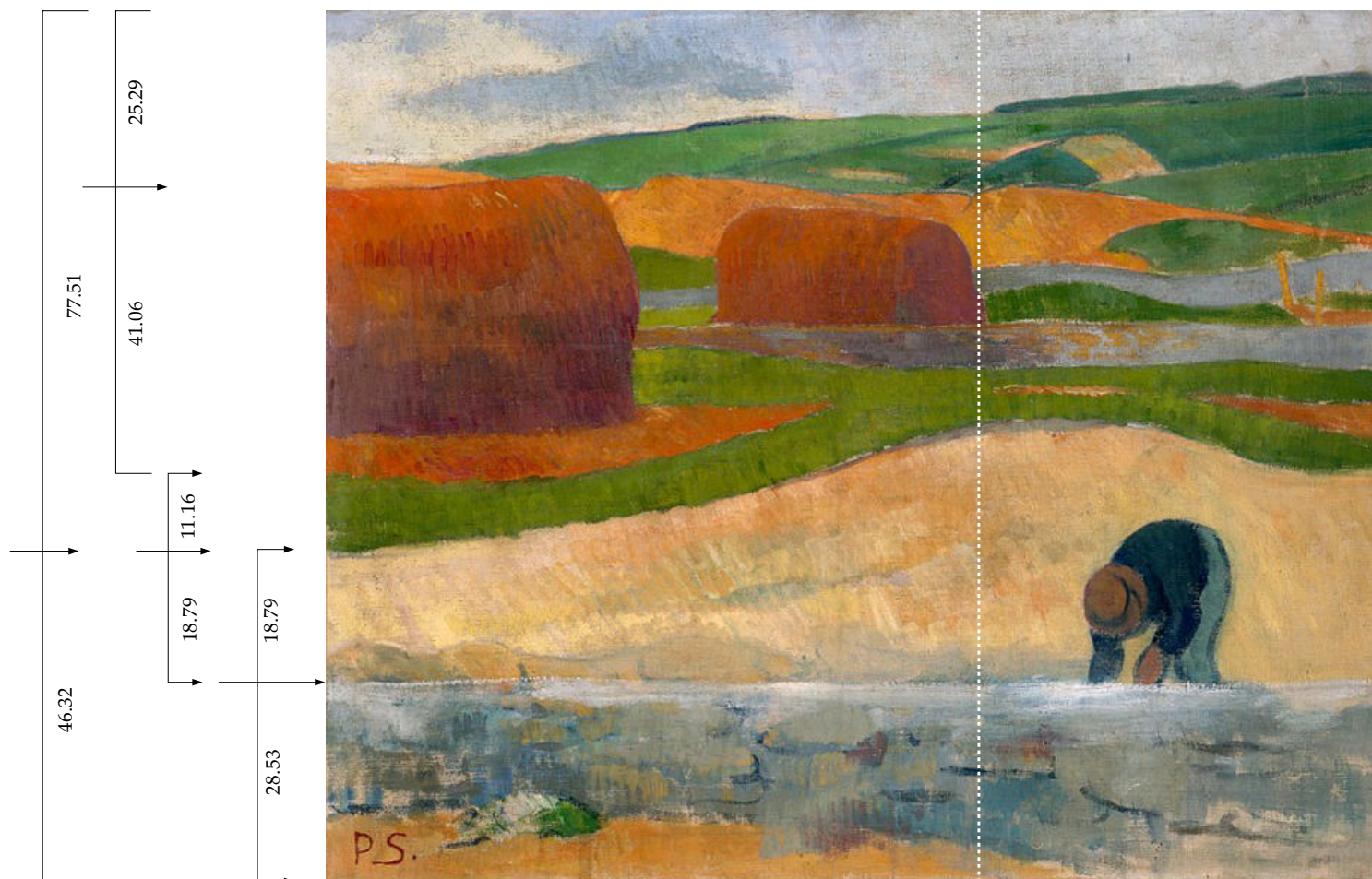


Plate 9.8 Paul Sérusier: *Le Ramasseur de Goémon* – (between 1888-90 – CR p-007.Pay) showing four unrelated GS divisions, aligned along the LH vertical border. Note that the 46.32 mm limb is further subdivided by Type I GS. Also shown is the position of the L: S division of the the horizontal borders, which is coincident in the painting with the extreme right tip of the second haystack.



$$55.96: 90.77 = GS \pm 0.09 \text{ mm}$$

$$0.618619 = \phi + 0.000585$$

Plate 9.9 Paul Sérusier: *Jeune Bretonne à la Faucille* (1889 – P-1889.3.Fig) showing the primary GS division on the RH vertical border marking the lower level of the sloping wheatfield.



$$50.13: 83.27 = GS \pm 0.82 \text{ mm}$$

$$0.624213 = \phi + 0.006179$$

Plate 9.10 Paul Sérusier: *La Barrière* (c. 1889 – p-009.Pay) showing the emergence of three separate descending curves from the primary GS point on the RH vertical border

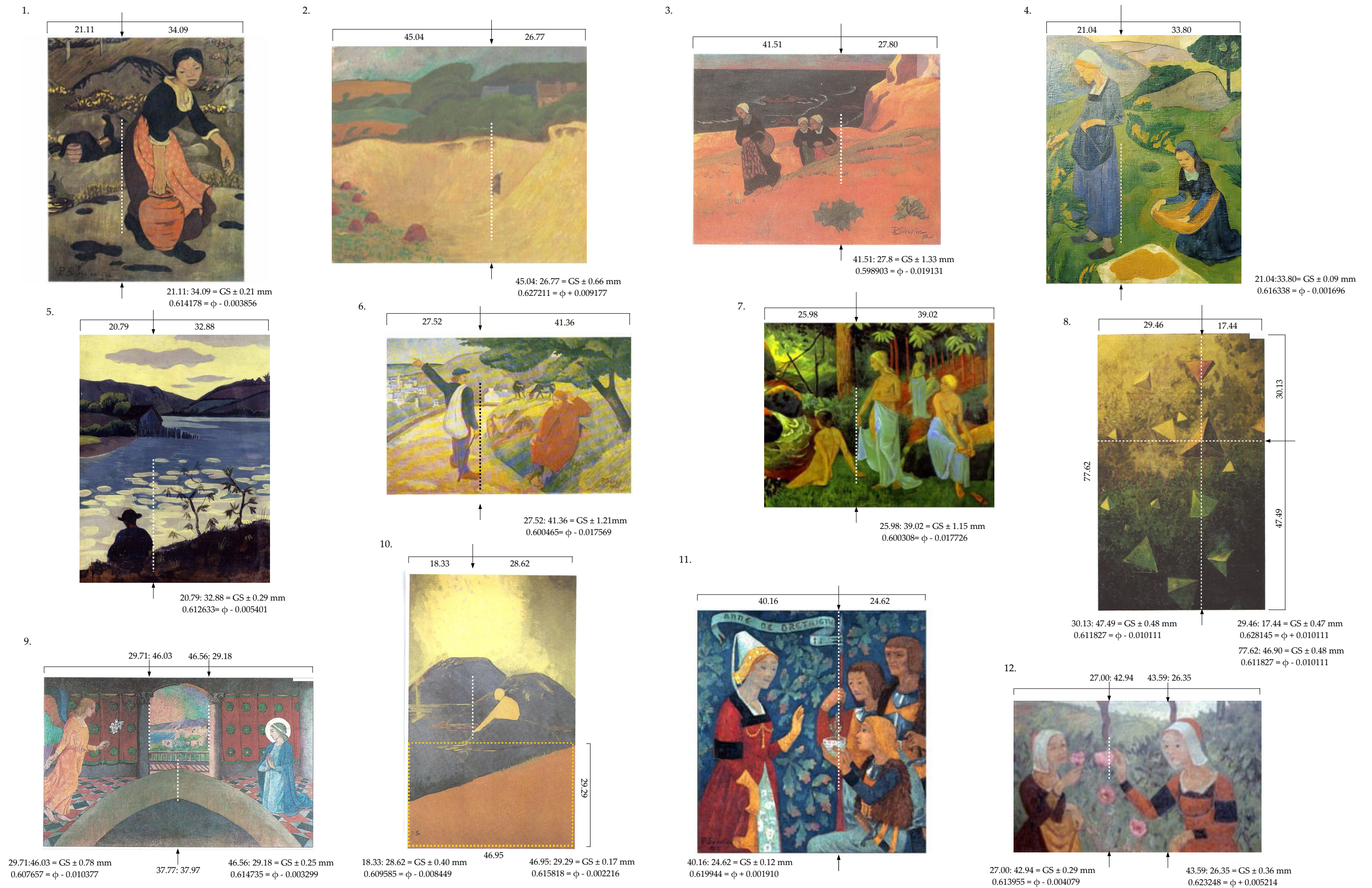


Plate 9.11 Paul Sérusier: Vertical subdivision arising from horizontal-border GS points. (Dotted white vertical lines indicate the line of GS subdivision within a picture. See text for further details).

1. *Jeune Bretonne à la Cruche* – 1892 – CR H-1892.2.Fig 2. *Les Grands Sables au Pouldu* – 1888-90 – G I no 35 3. *Les Bretonnes marchent sur la Grève* – 1892 – CR P-010.Fig 4. *La Cueillette de Genêt* – 1889 – GI no 8.
5. *La Pêcheur à la Laita* – 1890 – G I no 30 6. *Tityre & Mélébée ou l'Adieu à Gauguin* – 1906 – CR C-1906.1.Myt 7. *Baigneuses aux Voiles Blancs* – 1908 – CR C-1908.1.Fig 8. *Les Tetraèdres* – 1910 – GII no 135
9. *l'Annonciation* – 1904 – GI no 179 10. *Jeune Fille au Bord du Lac* – n.d. – (uncatalogued) 11. *Hommage à Anne de Bretagne* – 1922 CR C-1922.1.Moy 12. *Les Pavots* – 1915 – GII no 209

1.

71.04



114.97

71.04: 114.97 = GS \pm 0.02mm
 0.618019 = φ - 0.000015

2.

47.44

47.44



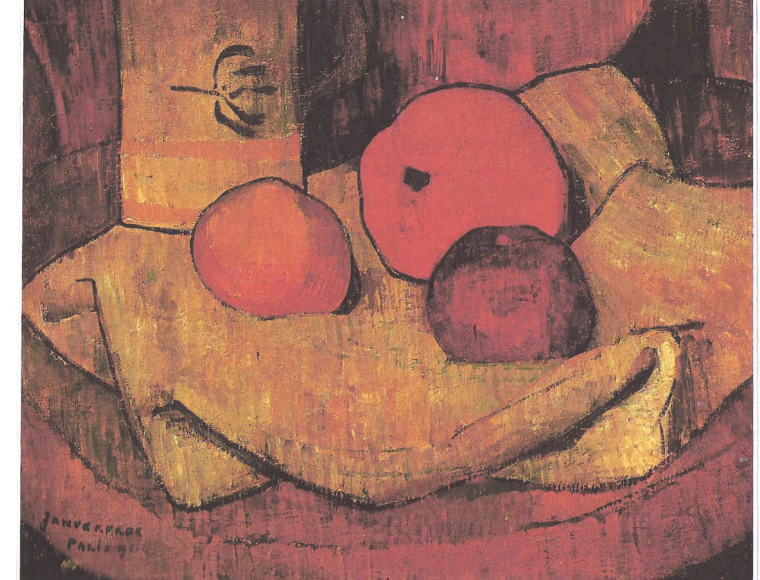
86.38

47.44: 76.38 = GS \pm 0.14mm
 0.616863 = φ - 0.001171

3.

48.1

48.1



77.59

48.10: 77.50 = GS \pm 0.13mm
 0.617038 = φ - 0.000996

4.



25.58: 40.25

41.28: 24.55

41.28: 24.55 = GS \pm 0.59 mm
 0.627970 = φ + 0.009036

25.58: 40.25 = GS \pm 0.44 mm
 0.611423 = φ - 0.006611

5.



42.09

27.87

12.69

67.62

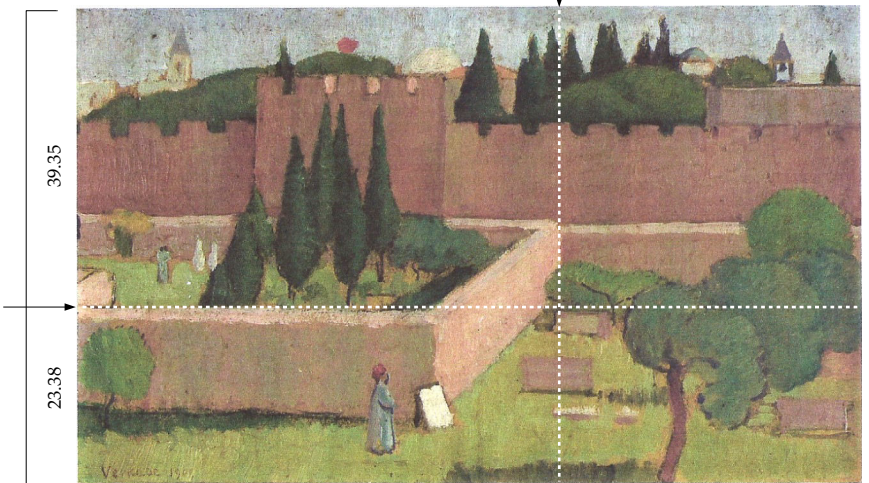
42.09: 69.21 = GS \pm 0.42 mm
 0.621833 = φ + 0.003799
 48.47: 29.49 = GS \pm 0.29 mm
 0.621729 = φ + 0.003695

56.00: 34.75 = GS \pm 0.09 mm
 0.617080 = φ - 0.000954
 21.09: 35.83 = GS \pm 0.65 mm
 0.629414 = φ + 0.011389

6.

63.87

39.61



62.73

103.48

103.48: 62.73 = GS \pm 0.28 mm
 0.622586 = φ + 0.004552

63.87: 39.61 = GS \pm 0.08 mm
 0.617221 = φ - 0.000813

39.61: 62.73 = GS \pm 0.52 mm
 0.612957 = φ - 0.005077

Plate 9.12 : Jan Verkade (1868 – 1946): examples of works employing GS techniques. With the exception of no 6, all belong to the period 1891– 94:

1. *Femme dans un Bois* – c. 1894 2. *Nature morte aux Pommes* – 1891 3. *Nature morte avec Cruche* – 1891

4. *Trois Vaches* – 1892 5. *Le Pouldu* – 1891 or 1892 6. *Friedhof in Palästina* – 1909.

(See text for further information)

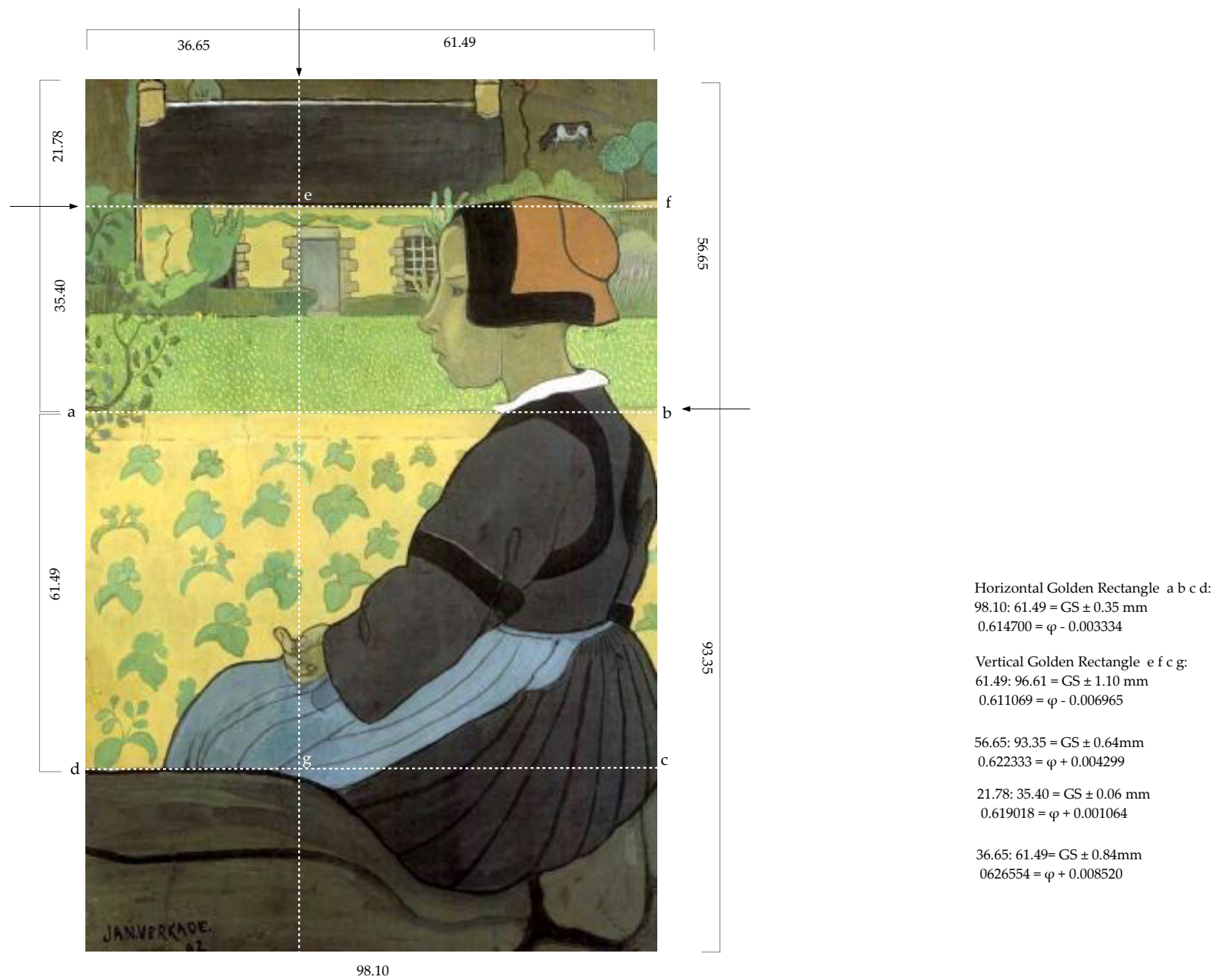


Plate 9.13 *Upper*: Charles Filiger: *Paysage du Pouldu* (c. 1892): note that when the upper strip of sky is *excluded*, the format of the picture is a horizontal GS rectangle, a b c d. When the strip of sky is *included*, a vertical GS rectangle, e f c h, is also present. The picture is also an example of the presence of *remote* or *disjunct* GS compliments (66.64: 107.30 and 125.73: 77.25), a characteristic feature also of Delius' compositions, but where the effect is obtained predominantly through Type II GS patterning.

Lower: Jan Verkade: *Paysanne de St - Nolff* (1892): The primary GS division of the vertical borders is at the juncture of the vegetable patch (yellow soil) with the green band above. The lower edge of the roof of the cottage then forms a secondary line of subdivision. As with the Filiger picture above, the composition contains one vertical (e f c g) and one horizontal (a b c d) GS rectangle and which (in the lower picture) together define the position of the seated girl.

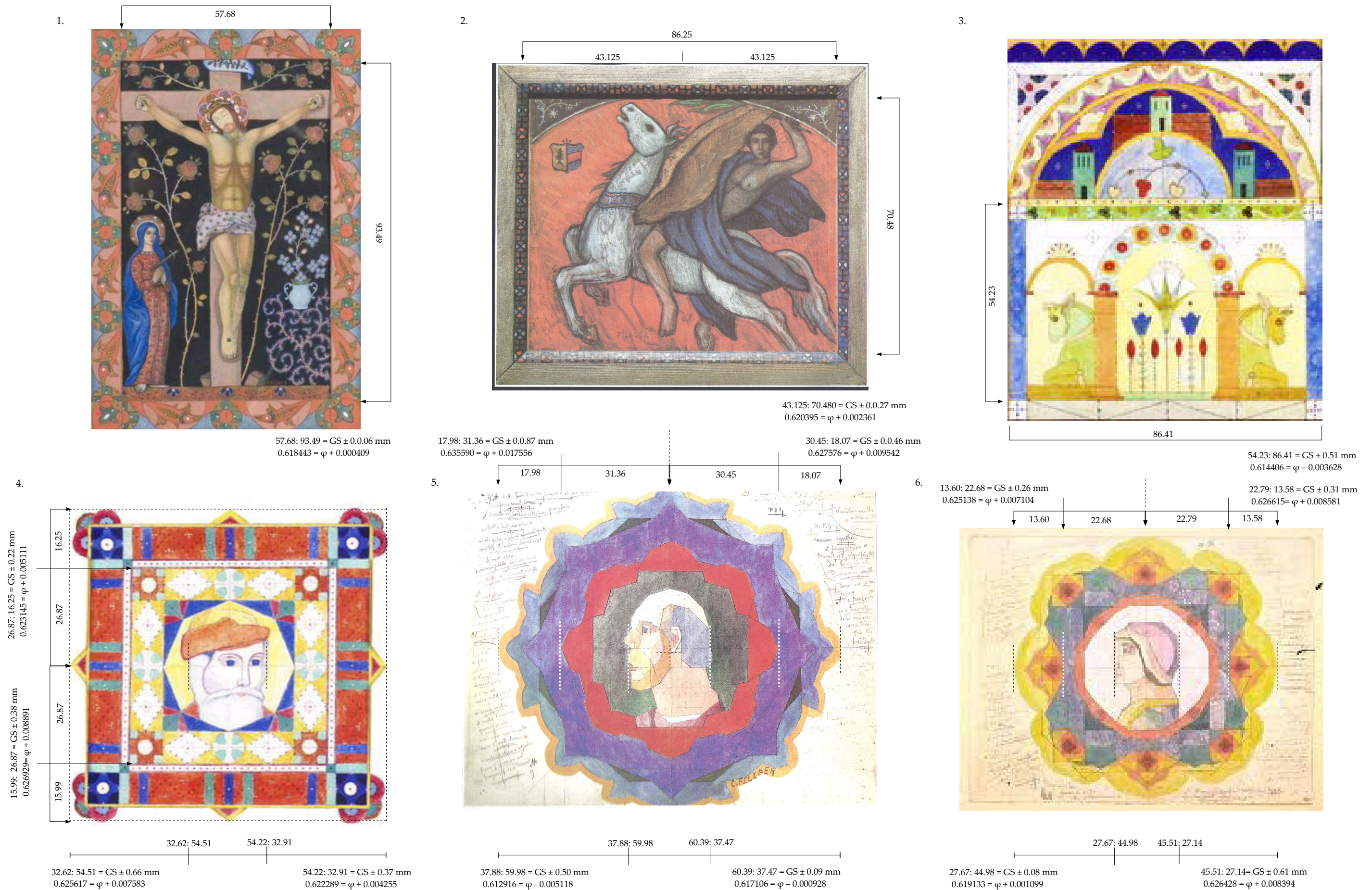


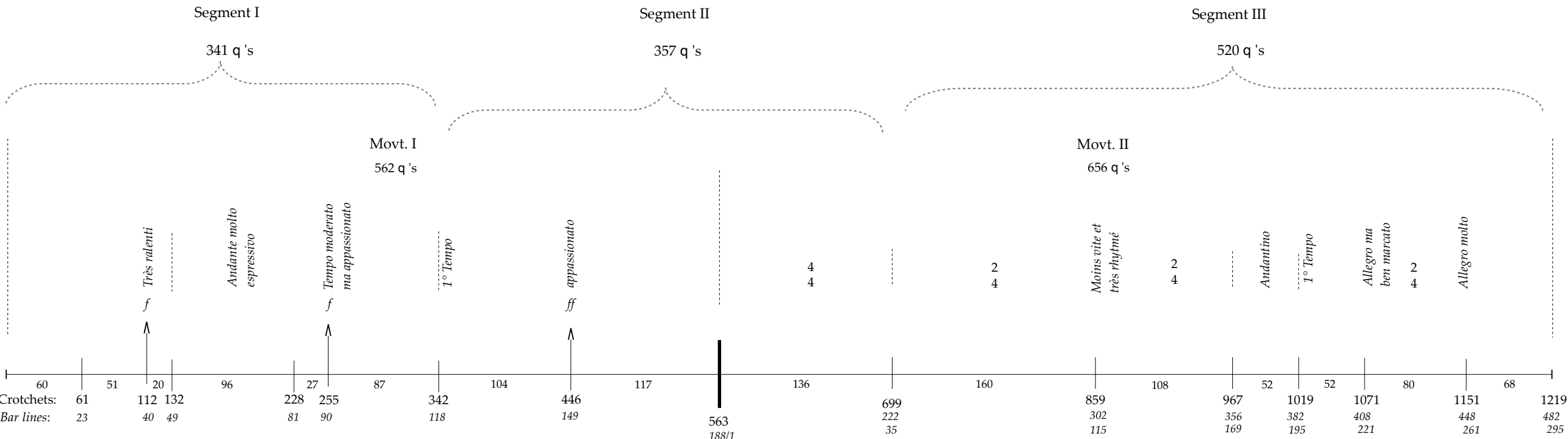
Plate 9.14 Charles Filiger: *Examples of works using Golden Section strategies :*

1. *Christ en croix* – 1903 – J*. 144 2. *Cavalier au Pégase blanc* – ? 1903– 1905 – J. 148. 3. *Architecture symboliste* – undated – J. 106.

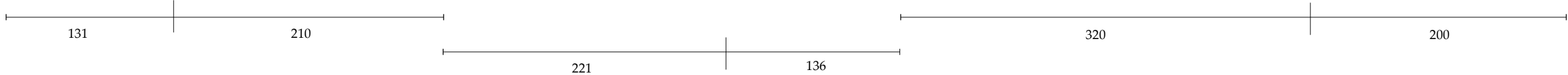
4. *Le vrai Portrait du Juif Errant II* – 1895 or 1905 – J. 153. 5. *Profil d'homme vers la gauche* – c. 1903 – J. 169 6. *Tête d'homme dans un cercle* – undated – J. 172.

See text for further details. *J. = catalogue number in Jacob (1990).

1.

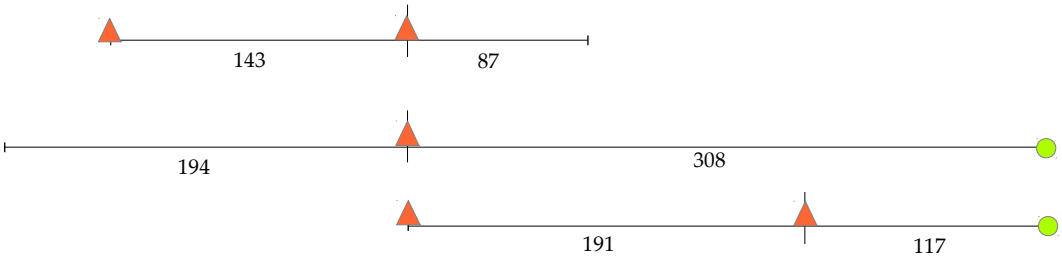


2.



131: 210 = $G S \pm 0.75 q's$
0.615838 = $\varphi - 0.002198$
221: 136 = $G S \pm 0.36 q's$
0.619048 = $\varphi + 0.001014$
320: 200 = $G S \pm 1.38 q's$
0.615385 = $\varphi - 0.002649$

3.



▲ = climax or climactic point

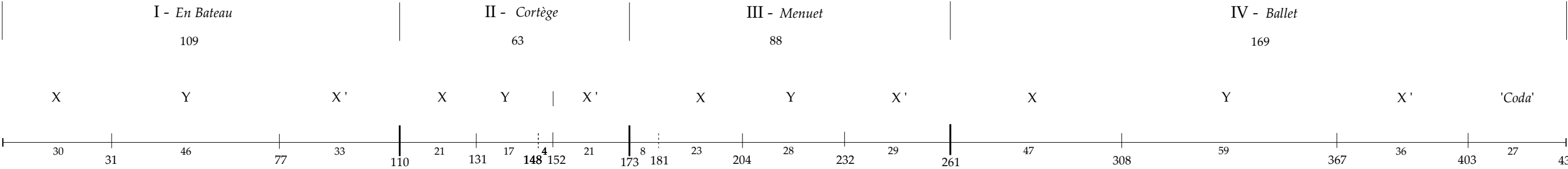
143: 87 = $G S \pm 0.85 q's$
0.621739 = $\varphi + 0.003705$
194: 308 = $G S \pm 2.25 q's$
0.613546 = $\varphi - 0.004488$
191: 117 = $G S \pm 0.65 q's$
0.620130 = $\varphi + 0.002096$

Figure 10.1 Debussy: *Printemps* – *Suite Symphonique pour Orchestre, Piano et Chœurs* L 68 (February 1887) (edition used: Debussy 1904):

1. Axis units in *crotchets* indicating the overall partitioning, the two individual movements, and within-movement subdivisions. Climaxes (Movt. I) are also shown.
2. *GS divisions within the crotchet-reduction axis*: For the purpose of overall proportioning, the work has been partitioned irregularly into three segments, each segment being subdivided by a single *GS Type I* division.
3. In Movt. I *climaxes or climactic points* are interlinked by *Type I GS* proportioning.

Debussy: *Petite Suite* – (piano à quatre mains)

1.



2.

3.

4.

33: 21 = $G S \pm 0.37$ bars
 $0.611111 = \varphi - 0.006923$
29: 47 = $G S \pm 0.03$ bars
 $0.618421 = \varphi + 0.000387$

142: 230 = $G S \pm 0.09$ bars
 $0.618280 = \varphi + 0.000246$

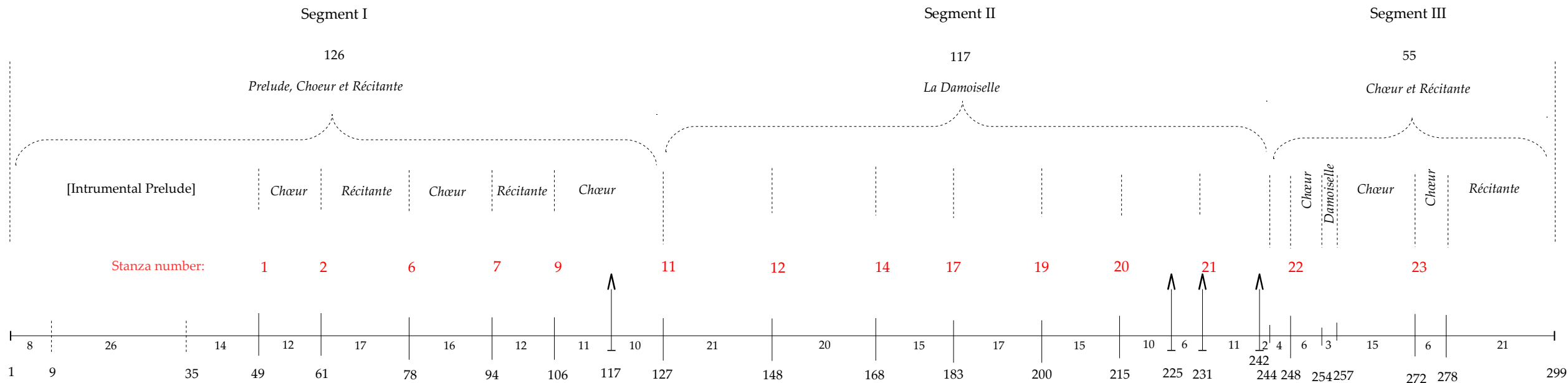
122: 198 = $G S \pm 0.23$ bars
 $0.618750 = \varphi + 0.000716$

Figure 10.2 Debussy: *Petite Suite* – piano four hands L 71 (1888 – 1889):

1. Axis units in *bars* indicating the individual movements, and within-movement subdivisions. X, Y and X' show different sections of music within each movement.
- 2 - 4. *GS subdivisions within the axis*: Four divisions are shown:
 2. 1 and 2. 2 form GS links between movements I/II and III/IV respectively.
 3. The S: L and L: S GS points of division 3 mark out the junctures of II/III and III/IV placing the *Menuet* in a central position within the *Suite*.
 4. The S: L and L: S GS points of division 4 mark the junctures of sections Y/X' and X/ Y of movements III and IV respectively. The 'central' 76 bars of this division, when subdivided by GS, constitute GS link 2. 2 above.

Debussy – *La Damoselle élue*

1. Axis in bars:



2. GS divisions with in each Segment:

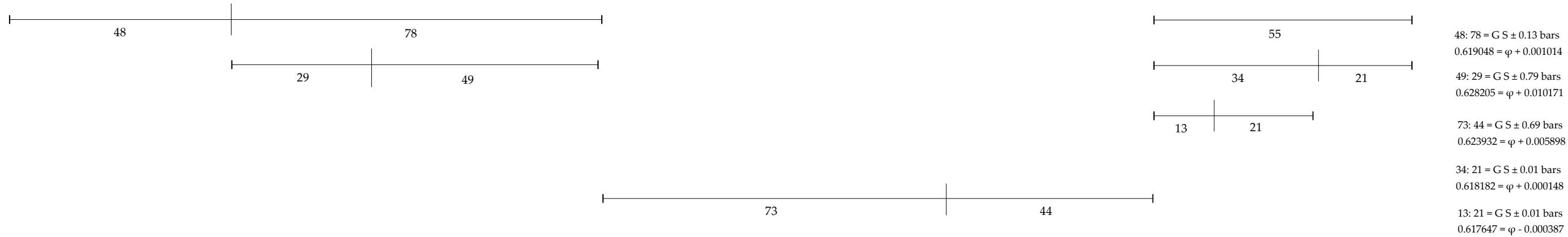
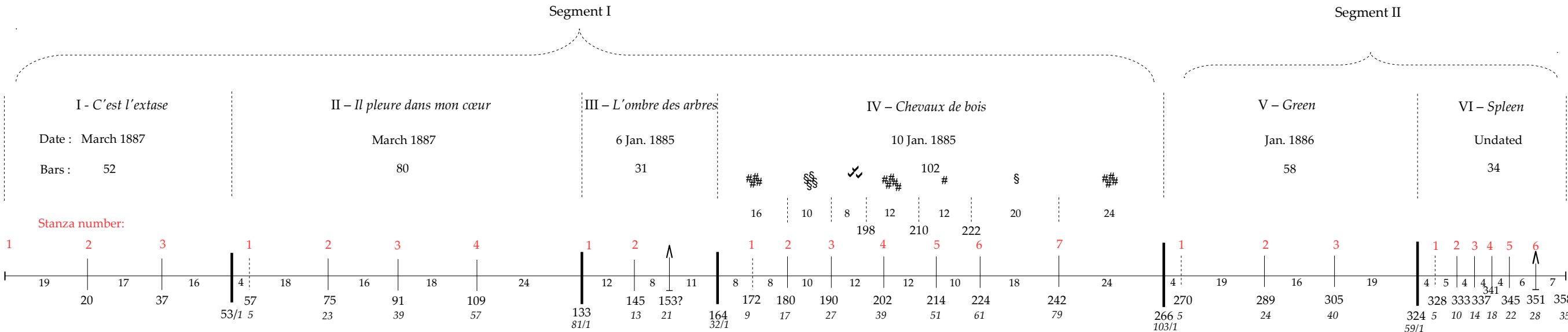


Figure 10.3 Debussy: *La Damoselle élue* L 69 (1887 – 88):

1. Axis, units in *bars*, partitioned into three segments according to the dramatic layout of the poem. Numbers in red above the axis indicate the stanza number in Rossetti's original poem.
2. Subdivision by GS within each of the three segments.

Debussy: *Ariettes oubliées*

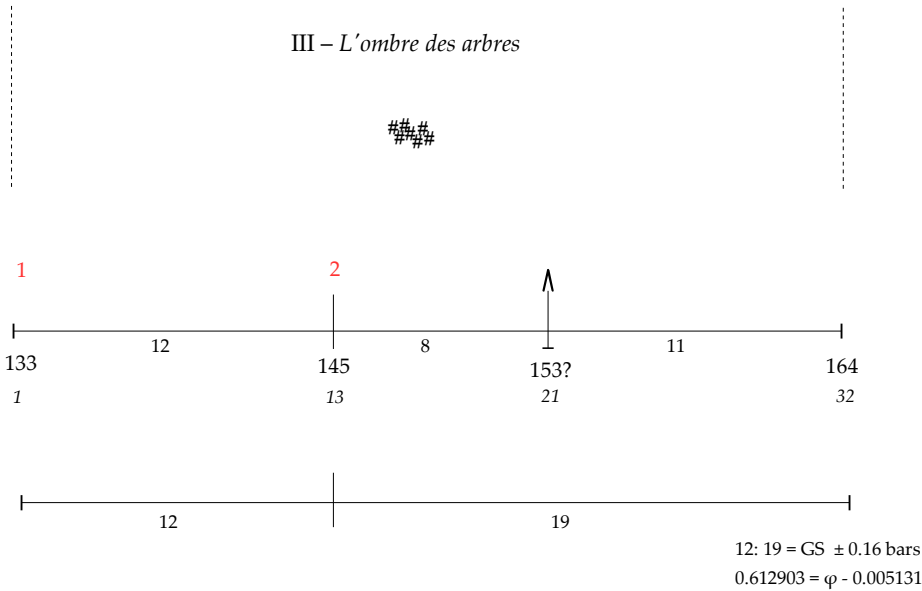
1. Axis in bars:



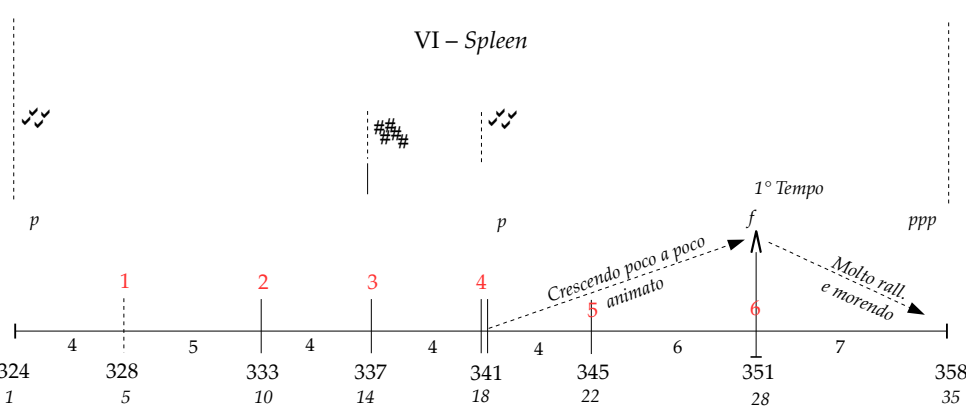
2. Single GS division in each Segment:



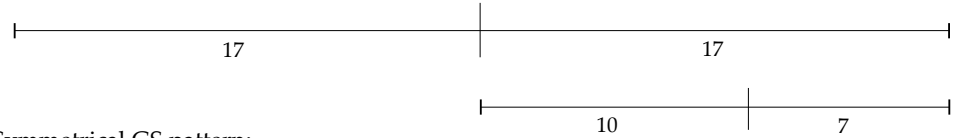
3.



4.



4 a. Bisection:



4 b. Symmetrical GS pattern:

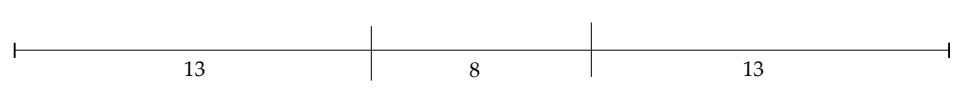


Figure 10.4 Debussy: *Ariettes oubliées* L 63 – (1885–1888):

1. Axis in *bars*. Showing the groupings of the movements into two segments. The dating of individual songs follows those given by the *Centre de Documentation Claude Debussy*.
2. Subdivision of each segment by a single GS division.
3. GS division in song III, with the GS point at the juncture of stanzas 1 and 2.
4. 'Ascent formation' in song VI in the second half of the movement but with the proportion falling short of a GS value.
- 4 a. & 4 b. Superimposition of a bisection with a symmetrical GS pattern in Song VI.

Debussy: *Cinq Poèmes de Charles Baudelaire*

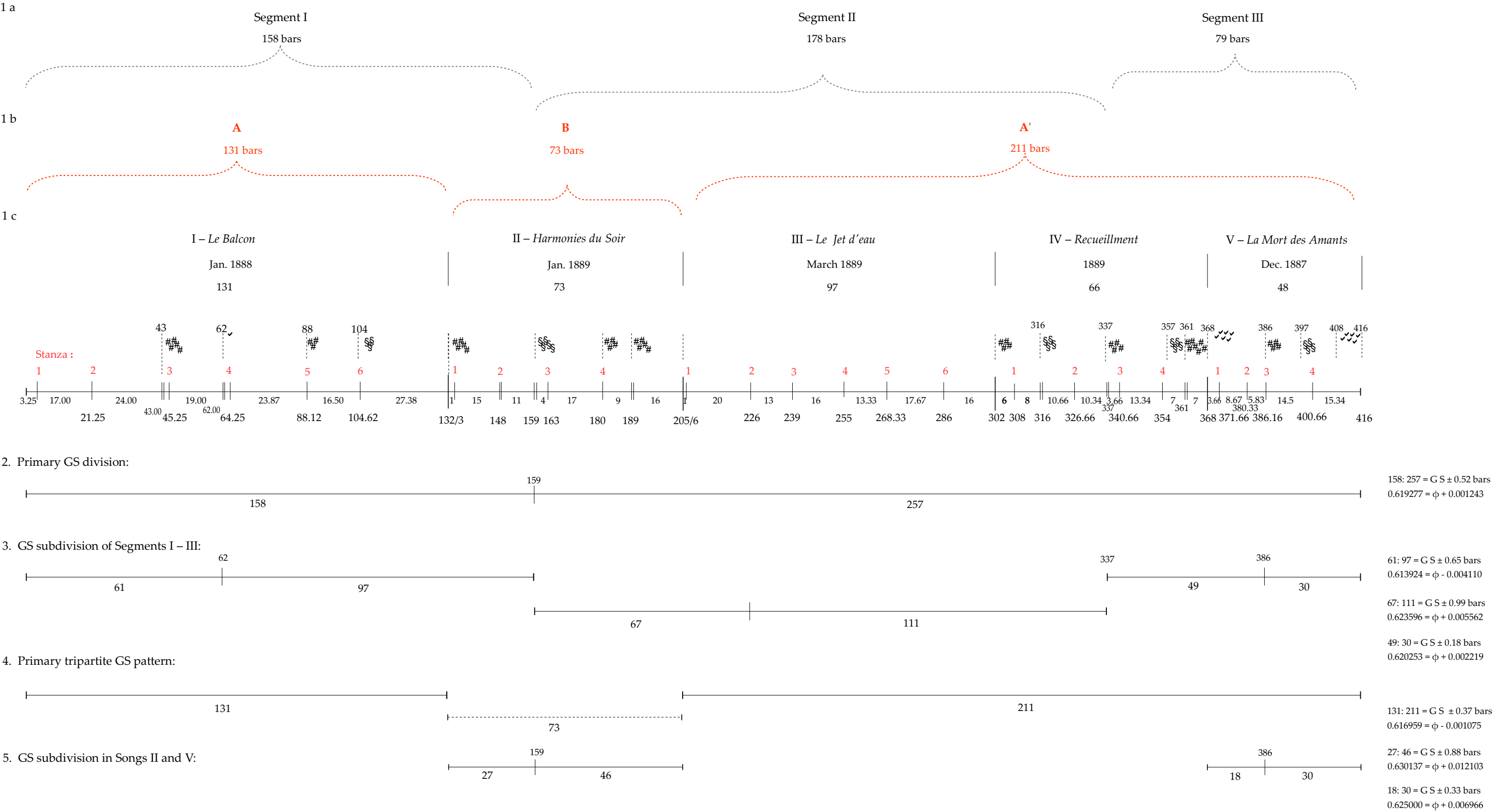
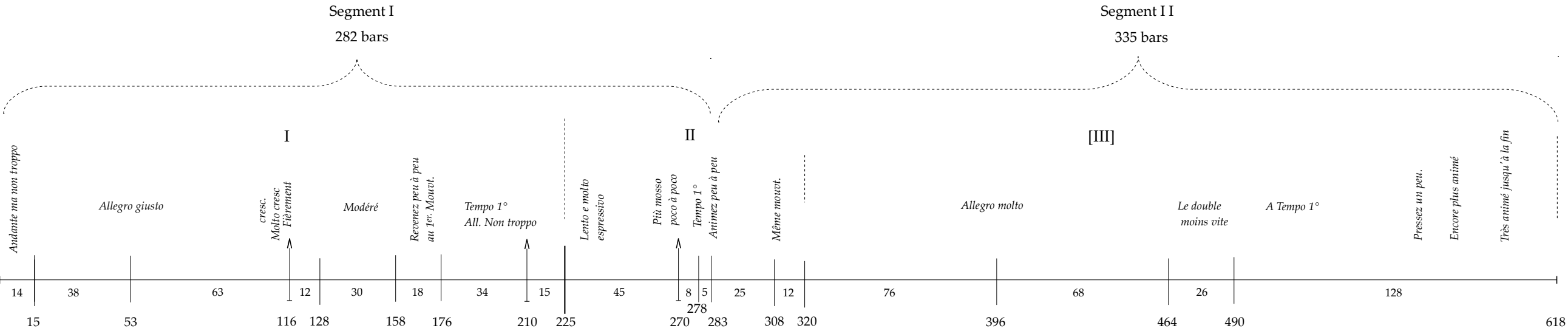


Figure 10. 5 Debussy: *Cinq Poèmes de Charles Baudelaire* L 70 (1887 – 1889). (For the dates of individual songs *see* axis 1c above):

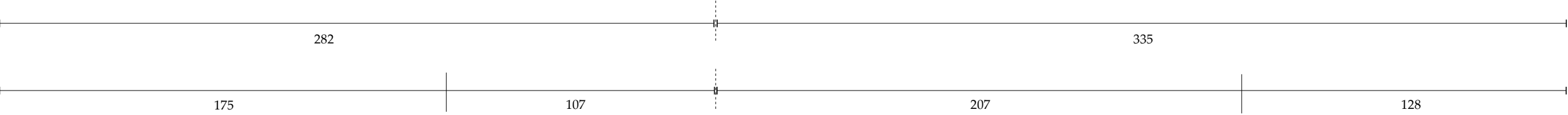
- 1 a Partitioning of the five songs into three segments. 1 b illustrates the demarcation of the songs into a tripartite GS pattern. 1 c shows the axis, units in *bars*, indicating the individual songs, sections within each song, and changes of key signature.
2. Primary S: L GS division with GS point at bar line 159.
3. Single subdivision by GS within each of Segments I – III.
4. Formation of an overall tripartite ABA' GS pattern: I || II || : III+IV+V, = 131 || 73 || : 211 bars. The approximate overall proportioning of Song II into a S: L GS division (see 5 below) suggests a (quadripartite) CGSP may have been intended.
5. Song II divides at bar line 159 (at the change in key signature) into an approximate GS proportion; similarly Song V divides at bar line 386, also at a change of key signature, and at the

Debussy: *Fantaisie pour Piano et Orchestre*

1. Axis in bars:



2. Two segments showing GS subdivision within each:



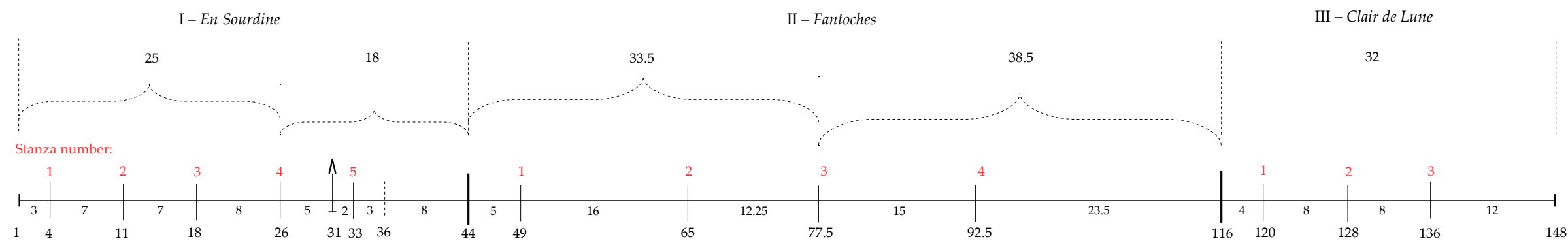
175: $107 = G S \pm 0.71$ bars
 $0.620567 = \varphi + 0.002533$
207: $128 = G S \pm 0.04$ bars
 $0.617910 = \varphi - 0.000124$

Figure 10.6 Debussy: *Fantaisie pour Piano et Orchestre* L 72 – (October 1889 – April 1890):

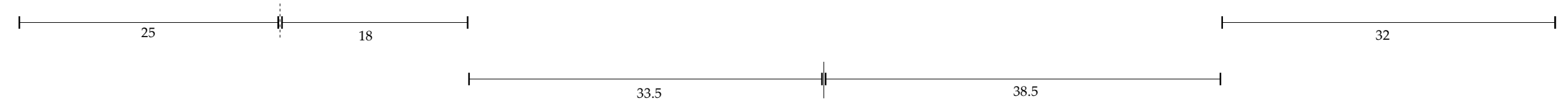
1. Axis in *bars* indicating the main subdivisions within the *Fantaisie*, together with selected dynamic markings.
2. Two segments of music which together span the entire work are each subdivided by GS at the *Tempo 1°* markings in movements I and III respectively.

Debussy: *Fêtes Galantes I*

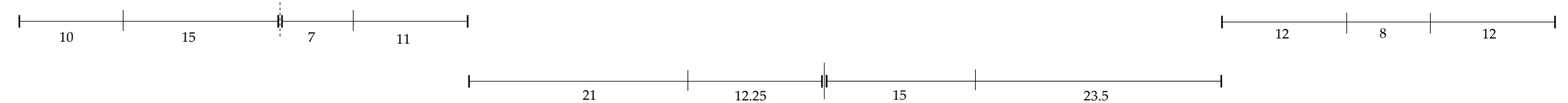
1.



2.



3.



10: 15 = G S \pm 0.45 bars
0.600000 = φ - 0.018034
7: 11 = G S \pm 0.12bars
0.611111 = φ - 0.006923
21: 12.25 = G S \pm 0.45 bars
0.631579 = φ + 0.013545
15: 23.5 = G S \pm 0.29 bars
0.610390 = φ - 0.007644
12: 20 = G S \pm 0.22 bars
0.625000 = φ + 0.006966

Figure 10.7 Debussy: *Fêtes Galantes – I° recueil* L 86 (1891– 1892):

1. Axis, units in *bars*, indicating the three individual songs and the position of stanza incipits within each song.
2. Showing the initial irregular partitioning of Songs I and II each into two segments.
3. Proportioning of Songs I and II with a single GS division in each segment. Song III (*Clair de Lune*) is proportioned as a symmetrial GS pattern.

Debussy – *Prélude à l'Après-Midi d'un Faune*

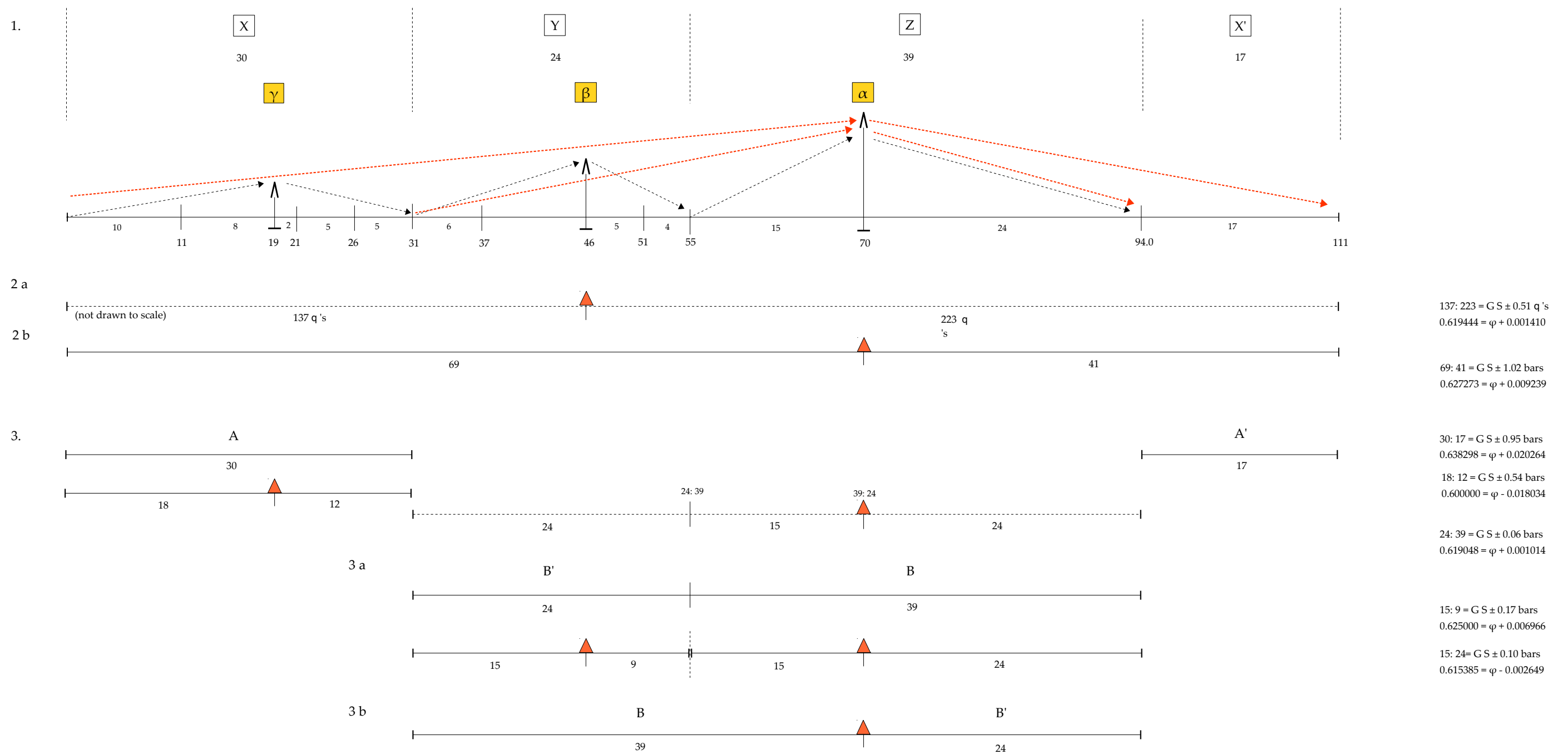


Figure 10.8 Debussy – *Prélude à l'Après-Midi d'un Faune* – L 87 (1891 – Sept. 1894) :

1. Axis in bars; the boxed Roman letters indicate passages of a similar/contrasting musical content. Dotted arrow shafts in black illustrate GS ascent formations occurring within each of the X, Y and Z sectors. Those in red show the positioning by GS of the α climax within the entire work. The three climaxes successively display an increasing intensity, the work culminating at the α climax.
- 2 a Primary S: L GS division occurring only at the *crotchet reduction level*. 2 b Primary L: S GS division occurring only at *bar level*.
3. Primary CGSP, with the central (B) section comprising a symmetrical GS pattern. Thus the overall primary pattern can be read as either 'switched' – 30||24: 39||: 17 bars or 'unswitched' – 30||39: 24||: 17 bars.

Note the use of the triple Fibonacci series 3(1, 2, 3, 5, 8, 21 etc.) = 3, 6, 9, 15, 24, 39, 63 in the B section of the above CGSP.

Debussy: *Proses lyriques*

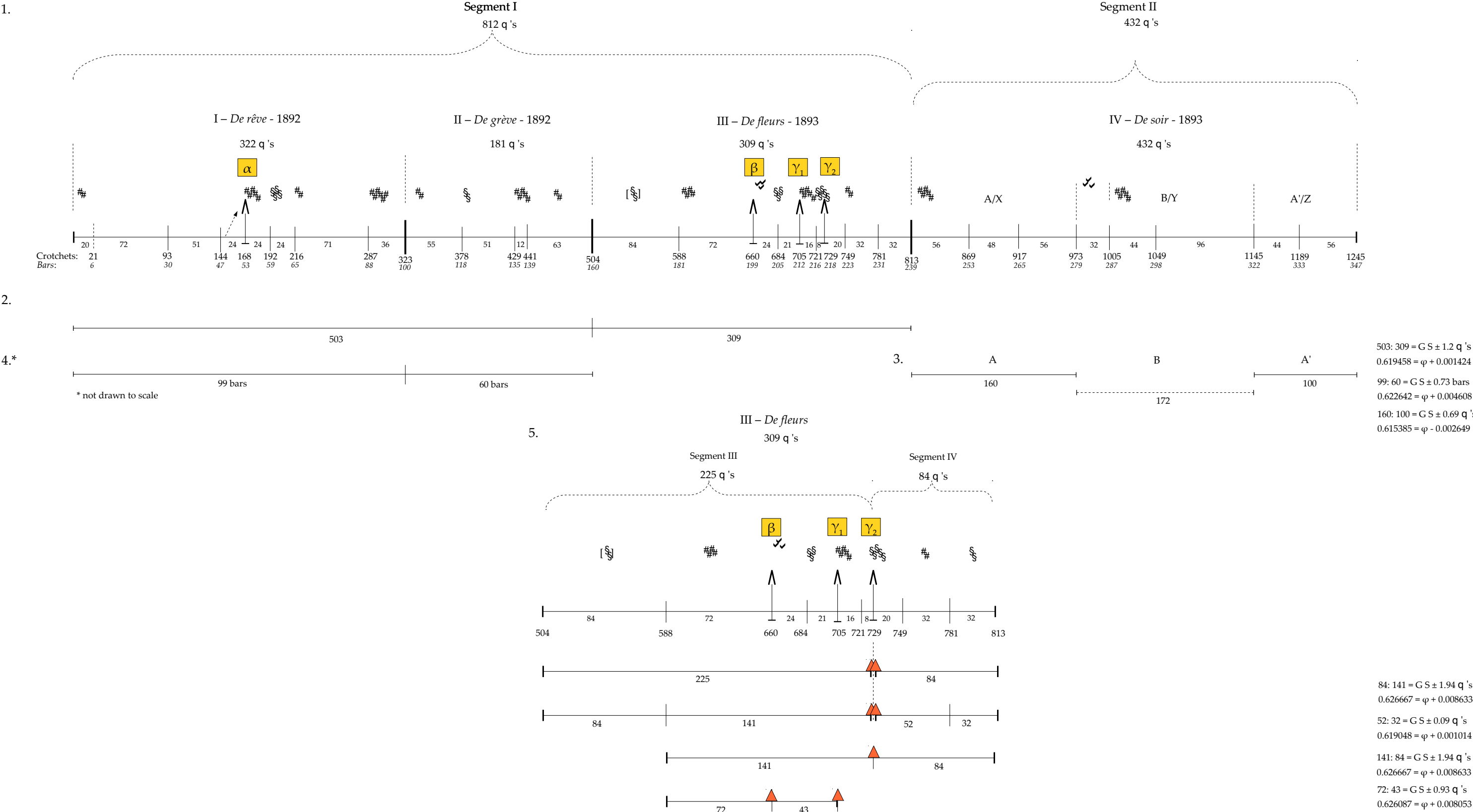


Figure 10.9 Debussy: *Proses lyriques* L 90 – (1892 – July 1893):

1. Axis in *crotchets* showing the grouping of the four songs into Segments I and II.
2. Subdivision by GS of Segment I (Songs I – III).
3. Partitioning of Segment II (Song IV) into a tripartite GS pattern in which the A and A' sections have differing musical content.
4. Partitioning of Songs I and II at *bar level* into an L: S GS division. This division may have been part of an earlier plan to proportion the four songs at bar level.
5. Song IV in *crotchets* – showing partitioning at the γ_2 climax into two further irregular segments, each of which is subdivided by a single GS division.

The linking by GS of the β and γ_1 points is also shown.

Debussy: *Nocturnes*

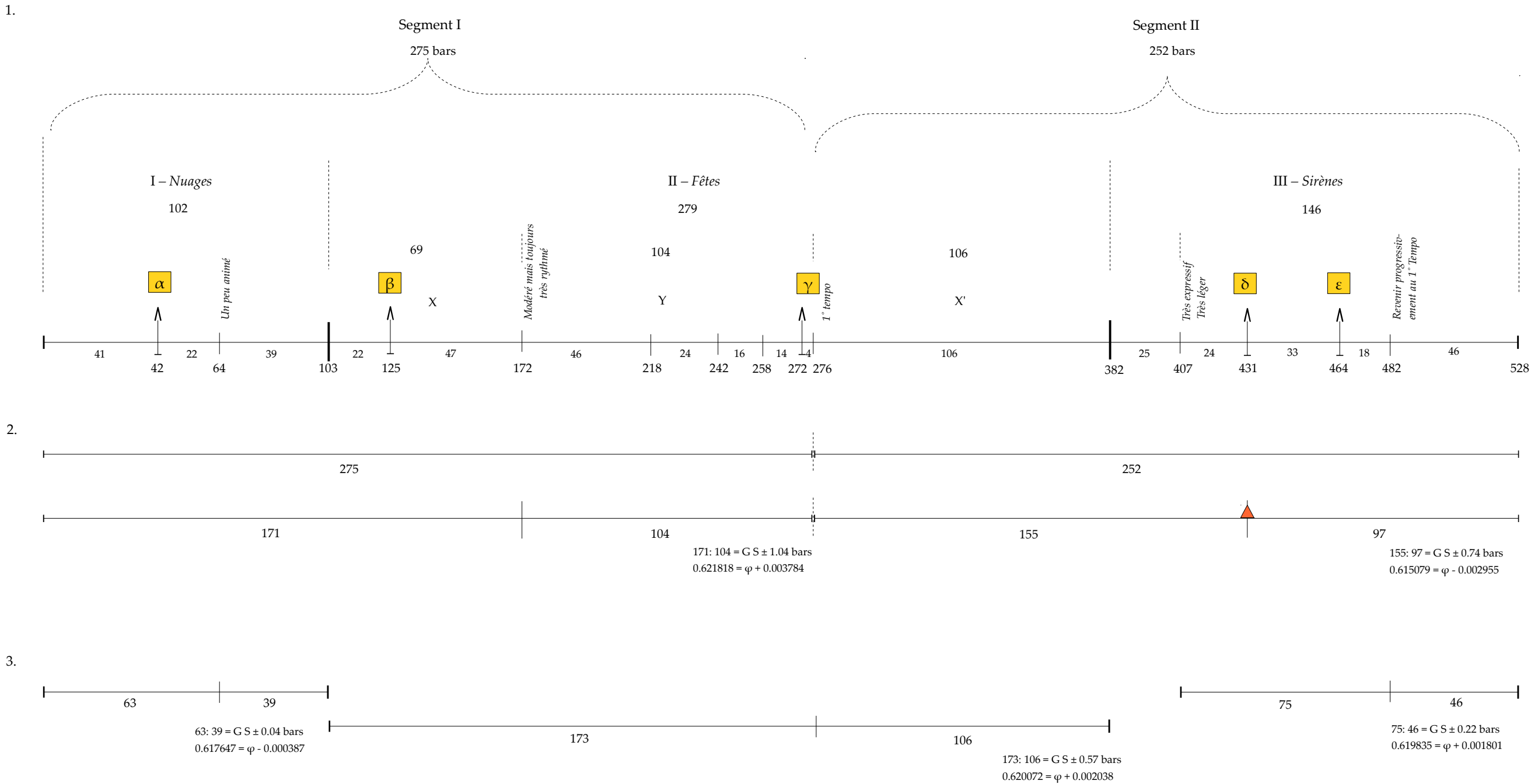
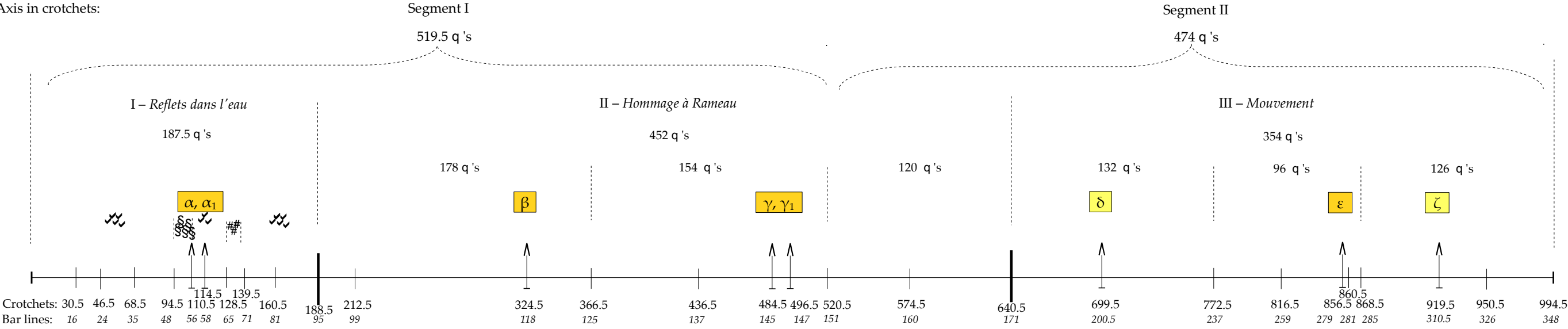


Figure 10.10 Debussy: *Nocturnes* – *Triptyque symphonique pour orchestre et chœurs*. L 98 (Dec. 1897– Dec. 1899):

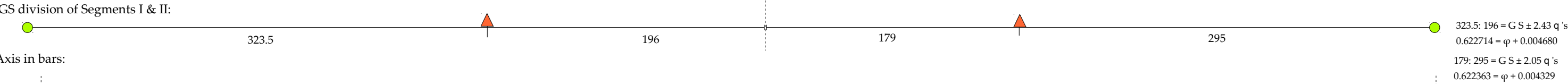
1. Axis, units in *bars*, indicating both Segments I and II and individual movements and sections within each movement.
2. The work is divided unequally at barline 276 and each segment is then subdivided by GS, respectively at the start of the X' section of *Fêtes* and at the δ climax of *Sirènes*.
3. Each movement is separately proportioned with a single L: S GS division. Note the shared point in lines 2 and 3 at barline 276.

Debussy: *Images I*

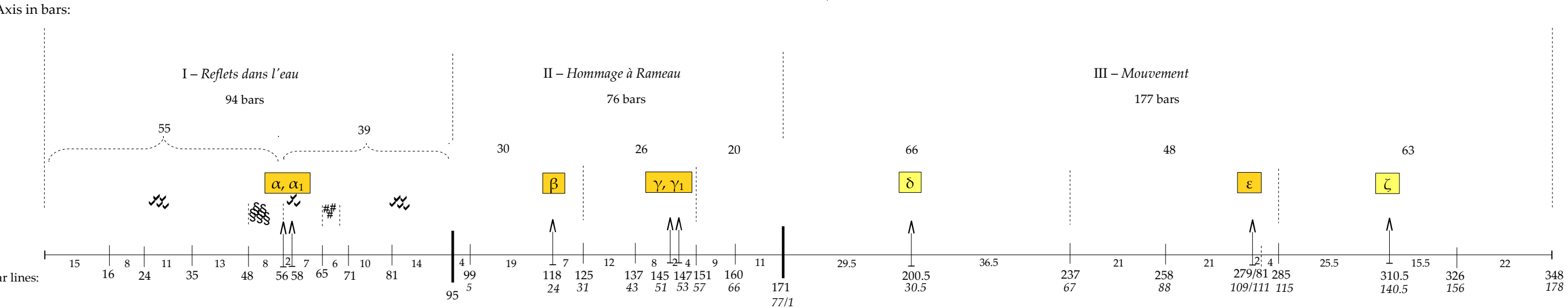
1. Axis in crotchets:



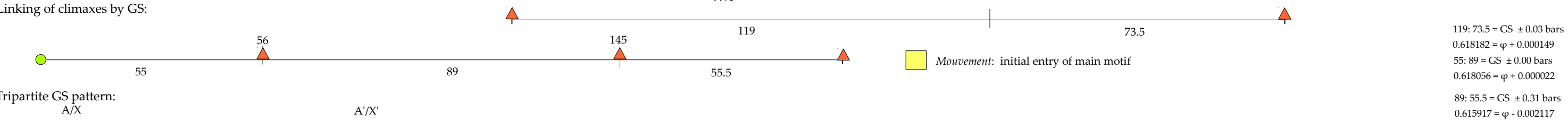
2. GS division of Segments I & II:



3. Axis in bars:



4. Linking of climaxes by GS:



5. Tripartite GS pattern:



6. Irregular partitioning followed by GS subdivision :



Figure 10.11 Debussy: *Images (1^{re} série)* L 105 – (1901 – 1905):

1. & 3. Axes in *crotchets* and *bars* respectively. Note the entire set of movements is partitioned irregularly into two segments of crotchet beats. Movt. I is similarly treated but partitioned in bars.
2. Subdivision of crotchet segments I & II by GS.
4. GS links (bars) between the climactic points of mvts. I – III. The points of initial entry of the main motif in the X and X' sections of III are treated here as 'climactic points'.
5. Tripartite GS pattern in Movt. I (with the two outer sections of the pattern being also musically matched).
6. Irregular partitioning (55 + 39 bars) followed by GS subdivision (Fibonacci & triple Fibonacci) of the two resulting segments in *Reflets dans l'eau*.

Debussy: *La Mer*

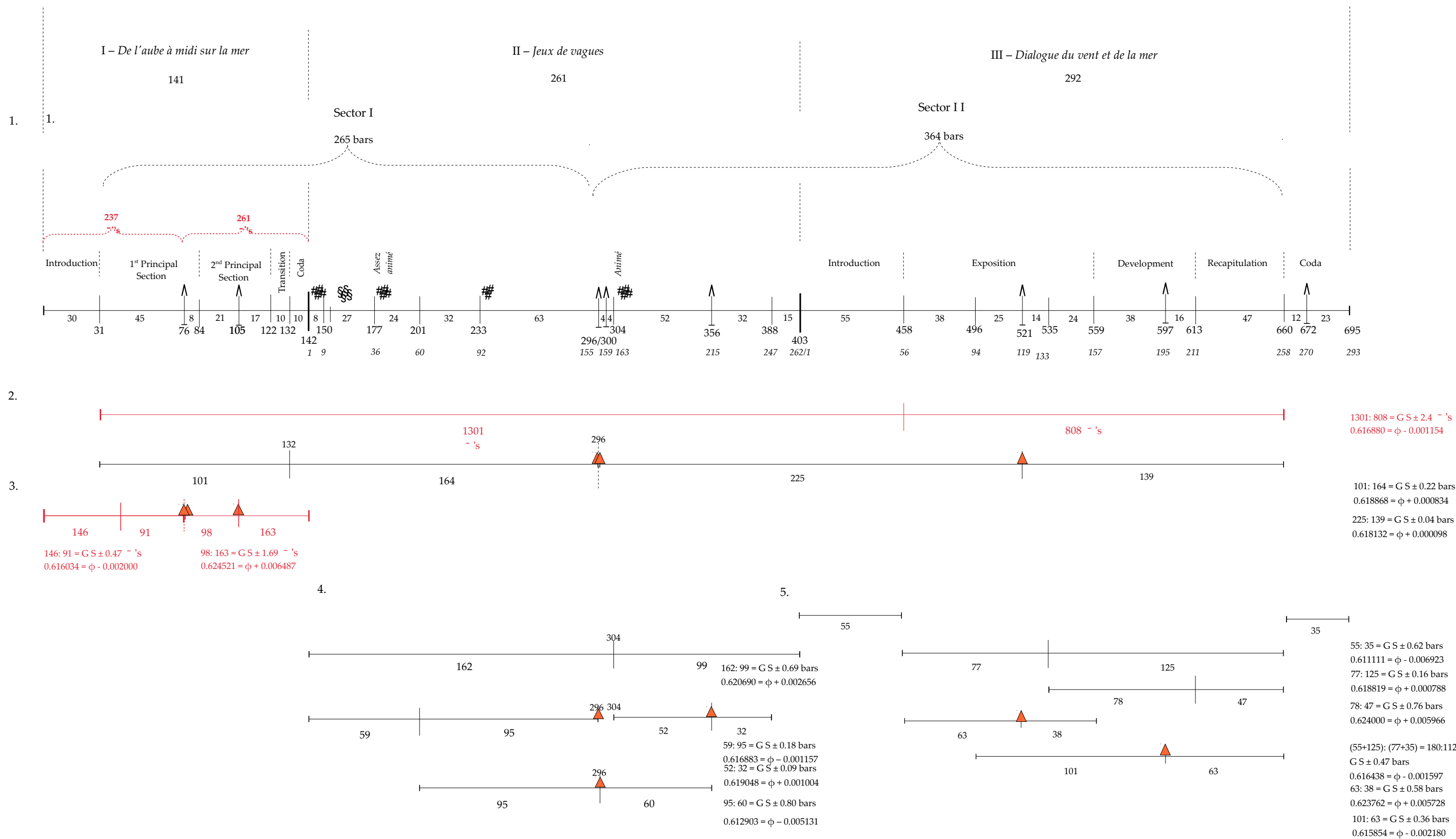
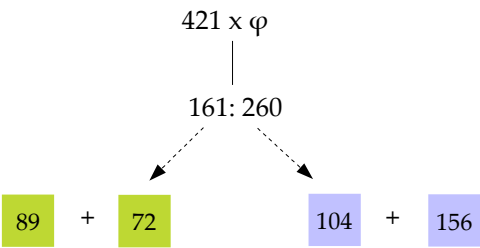


Figure: 10.12 Debussy: *La Mer* – *Trois esquisses symphoniques pour orchestre* L 111 (Aug. 1903 – 5th Mar. 1905):

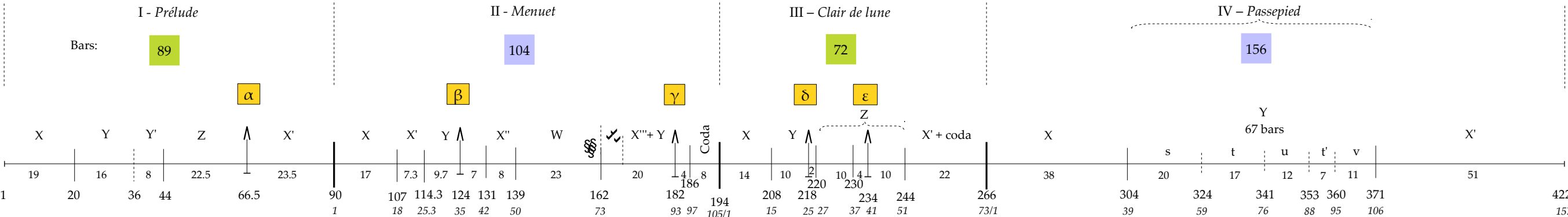
1. Axis, units in *bars*, indicating two overall partitioning sectors. Individual movements and sections within each movement are also shown.
2. Overall primary GS division in crotchets (in red – not to scale) and subdivision of the two overall sectors in bars by GS (black).
3. Movt I : Subdivision of the two Movt I sectors in crotchets (in red – not to scale).
4. Movt II: Primary GS division (bars) with possible subsidiary GS proportioning of the movement.
5. Movt III: The entire movement is cast as a switched complete GS pattern with one subdivision. Two tentative individual GS divisions are also shown.

Debussy: *Suite Bergamasque*

1. Showing division by GS of the total 421 bars with subdivision and redistribution of the components:

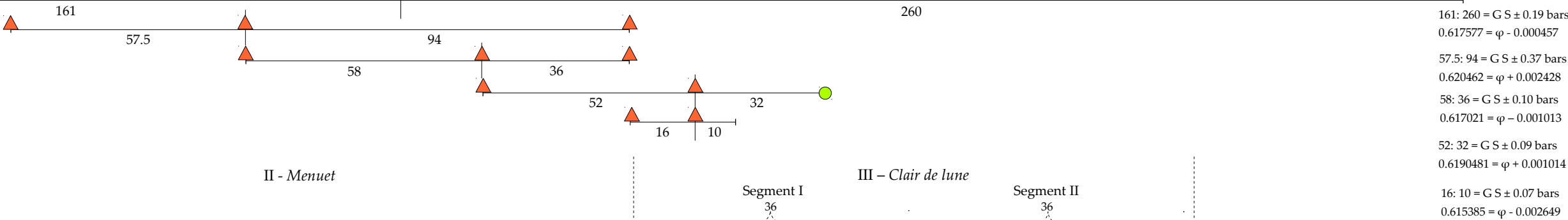


2. Axis in bars:

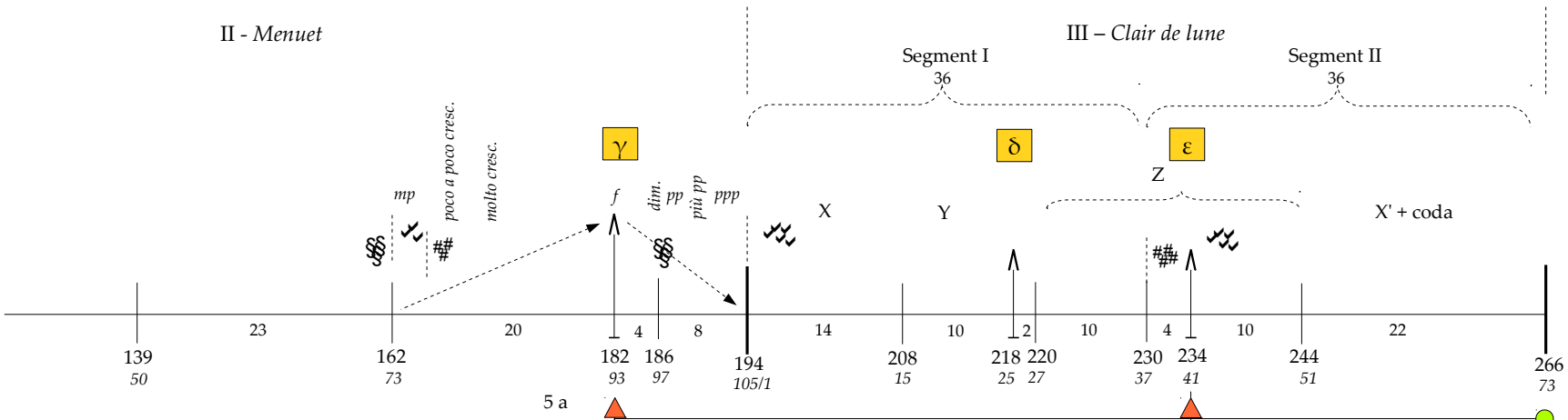


3. Primary GS division:

4. Linking of climaxes by GS:



5. 'Ascent' structure (Movt II) and GS partitioning (Movt III):



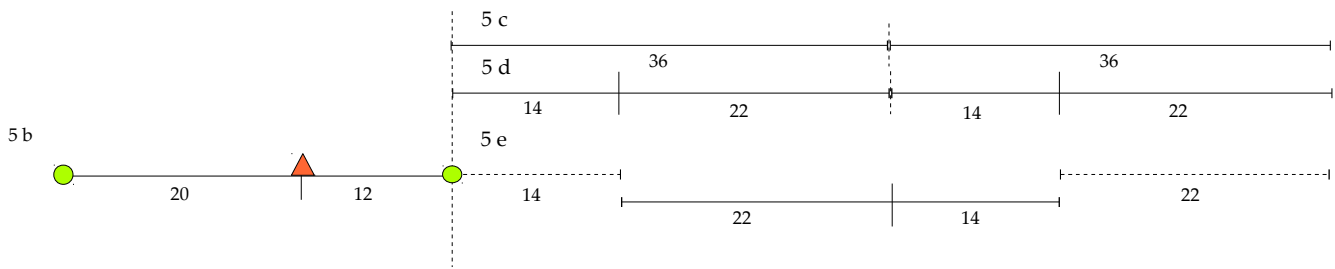
5 a. Linking of climaxes by GS:
(see 4 above)

5 b. Mvt II 20: 12 Ascent Formation

5 c. Mvt III 1: 1 GS Partitioning

5 d. Mvt III Single GS division of Segments I & II

5 e. Mvt III *cf* Delius' CGSP with switched B section



20: 12 = G S ± 0.22 bars
0.625000 = φ + 0.006966

14: 22 = G S ± 0.25 bars
0.611111 = φ - 0.006923

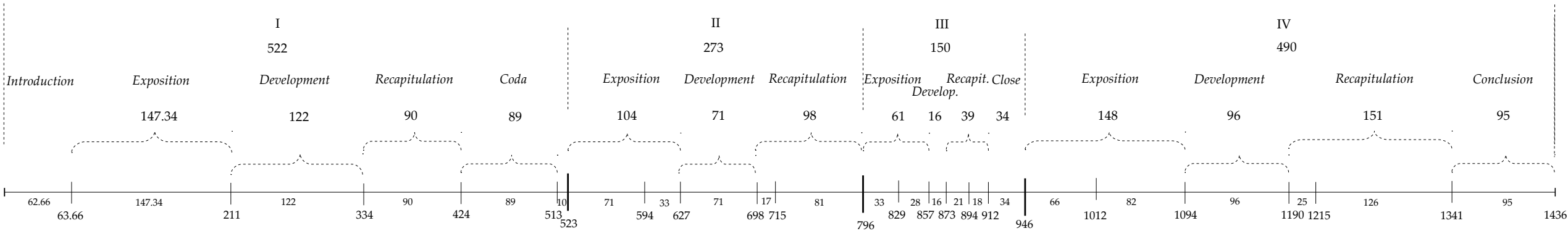
Unswitched CGSP:
(14+14): (22 + 22) = 28: 44
= G S ± 0.50 bars
0.611111 = φ - 0.006923

Figure 10.13 Debussy: *Suite Bergamasque* L 82 – (c. 1890 – revised 1905):

1. Showing the original division by GS of the overall 421 bars, followed by a non-GS subdivision and redistribution of the components.
2. Axis in bars: X, X', Y, Y' etc. refer to passages of similar/contrasting musical content within individual movements.
3. GS primary division: the S: L GS point marks the E flat entry in movt. II at bar line 162, at the start of the ascent formation.
4. GS links between the five climactic points of movts. I – III.
5. 'Ascent formation' in movt. II and GS partitioning (5 c & 5 d) and *cf.* switched CGSP (5 e) in movt. III.

Mendelssohn: Symphony No 3 in A minor

1.

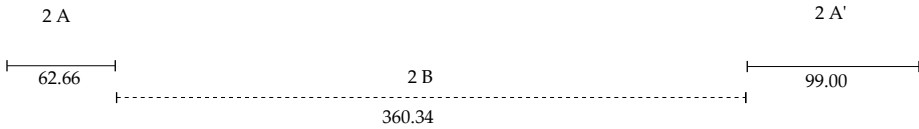


2.



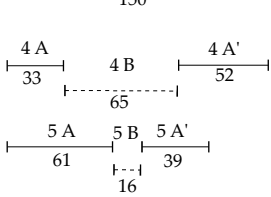
$795:490 = G S \pm 0.83 \text{ bars}$
 $0.618677 = \varphi + 0.000643$

3.



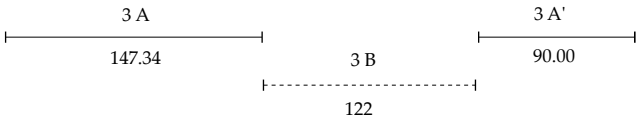
$62.66:99.00 = G S \pm 0.91 \text{ bars}$
 $0.612396 = \varphi - 0.005638$

5.



$147.34:90.00 = G S \pm 0.66 \text{ bars}$
 $0.620797 = \varphi + 0.002763$

3 a.



$104:169 = G S \pm 0.28 \text{ bars}$
 $0.619048 = \varphi + 0.001014$

4.



$33:52 = G S \pm 0.53 \text{ bars}$
 $0.611765 = \varphi - 0.006269$
 $61:39 = G S \pm 0.80 \text{ bars}$
 $0.610000 = \varphi - 0.008034$
 $151:95 = G S \pm 1.04 \text{ bars}$
 $0.613821 = \varphi - 0.004213$
 $244:151 = G S \pm 0.49 \text{ bars}$
 $0.619289 = \varphi + 0.002219$

6.

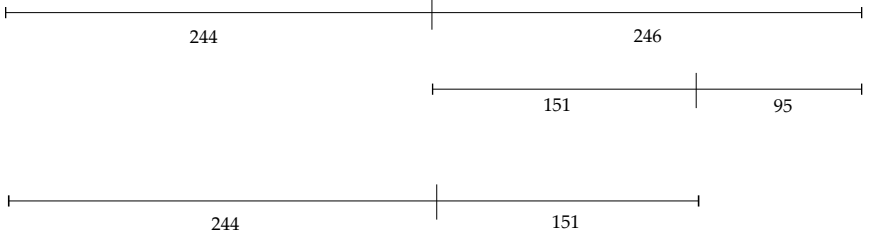


Figure 11.1 Mendelssohn Symphony no. 3 in A minor Op. 56 'Scottish'– (1829–1842):

The Symphony exploits methods of GS proportioning in each of the four sonata form movements (Movt IV has an added bisection). The overall format of the symphony is a tripartite GS pattern:

1. Axis in bars illustrating the basic structure of each movement.
2. Overall tripartite pattern showing Movts I and II in GS proportion with Movt IV.
3. Movt I is comprised of two tripartite GS patterns, the second of these being contained within the B section of the first.
4. In Movt II the exposition is placed, by means of a single GS division, in a simple S: L proportion with the development + recapitulation sections.
5. Movt III comprises two overlapping GS patterns. In the second of these (pattern 5) the exposition and recapitulation are represented by 5A and 5A' with the intervening section 5B forming the short development (*cf.* pattern 5 with pattern 3 i Movt. I).
6. Movt. IV is bisected, with the subdivision of the 246-bar limb placing the recapitulation and the concluding A major section in L: S GS proportion. Also, the exposition + development are placed in a simple L: S GS proportion with the recapitulation. Note that the movement employs the use of a mixed hierarchy of divisions with the single bisection sharing, at bar line 1190, a common point with the 244: 151 bar GS division .

Mendelssohn: Violin Concerto in E minor

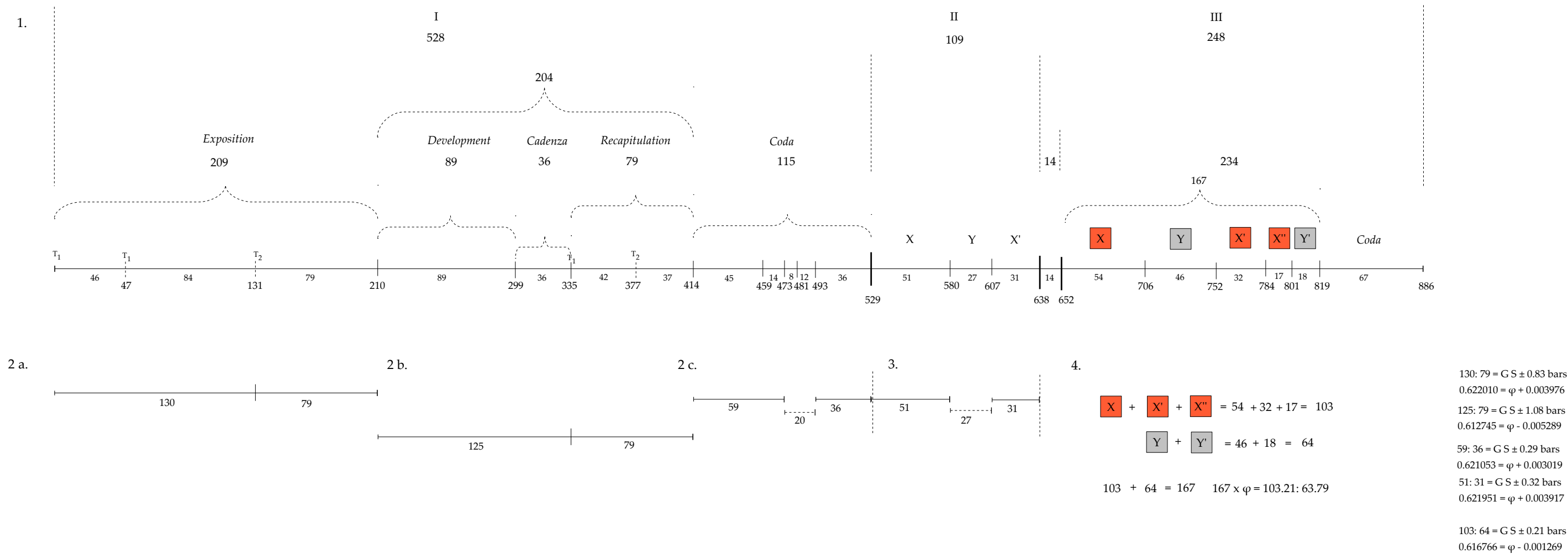


Figure 11.2 Mendelssohn Violin Concerto in E minor Op. 64 – (1838 – 1844):

- Axis in bars illustrating the basic structure of each movement. T_1 and T_2 = First and second subjects.
- Showing the GS partitioning of Movt. I. Each of Sectors 2a and 2b has a single GS L: S division. Sector 2c, the Coda, is proportioned to form a GS tripartite pattern.
- Movt. II is also the form of a GS tripartite pattern.
- Movt. III follows a simple redistribution pattern in which the sums of the total X's and of the total Y's are in the GS proportion of 103: 64 bars.

Mendelssohn: *Symphony No 5 in D major*

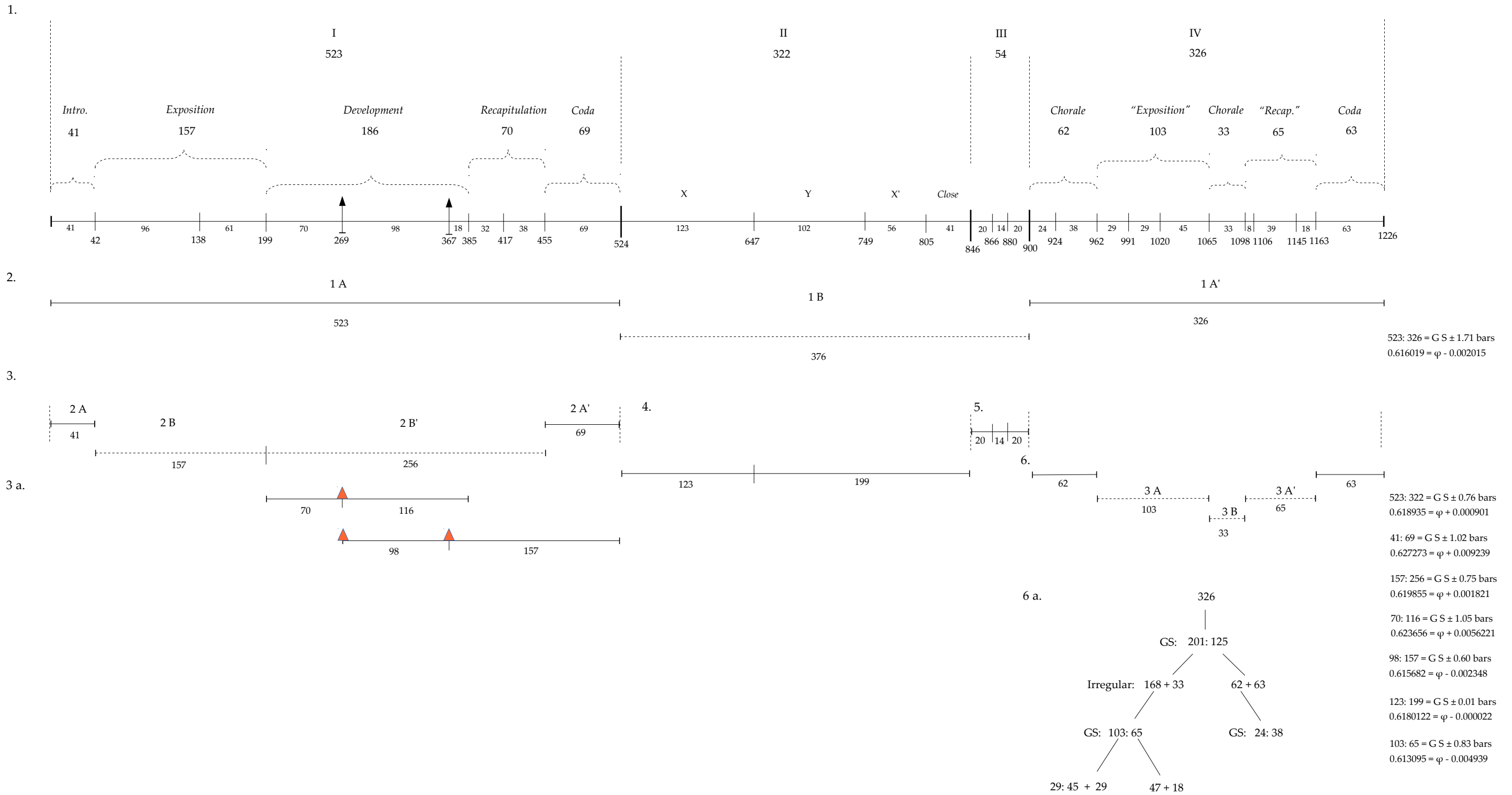
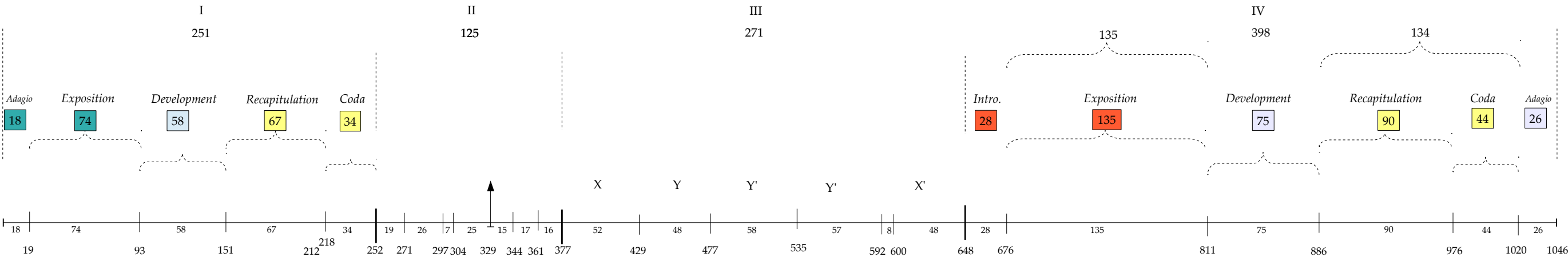


Figure 11.3 Mendelssohn: *Symphony No 5 in D major* Op. 107 'Reformation'– (1830):

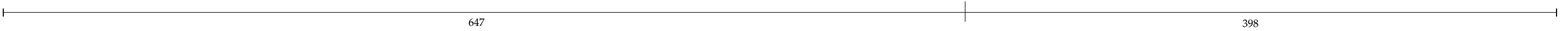
1. Axis in bars illustrating the basic structure of each movement.
2. Overall GS tripartite pattern..
3. Movt I comprises a CGSP in S: L format. 3 a. The first climax is at the S: L GS point of the development section, and which is also linked to the second climax by GS as shown.
4. Movt II is proportioned by a single S: L GS division.
5. Movt III is in a symmetrical format.
6. Movt IV consists of a tripartite GS pattern enclosed in a 1: 1 frame (62 and 63 bars). 6 a. demonstrates the proportioning of Movt IV as deriving from alternating GS and irregular subdivision.

Mendelssohn: String Quartet No 2 in A minor

1.



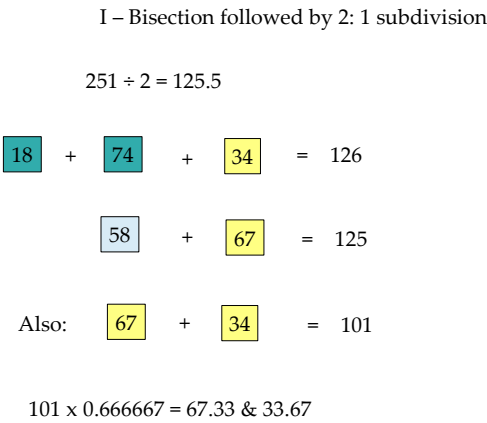
2.



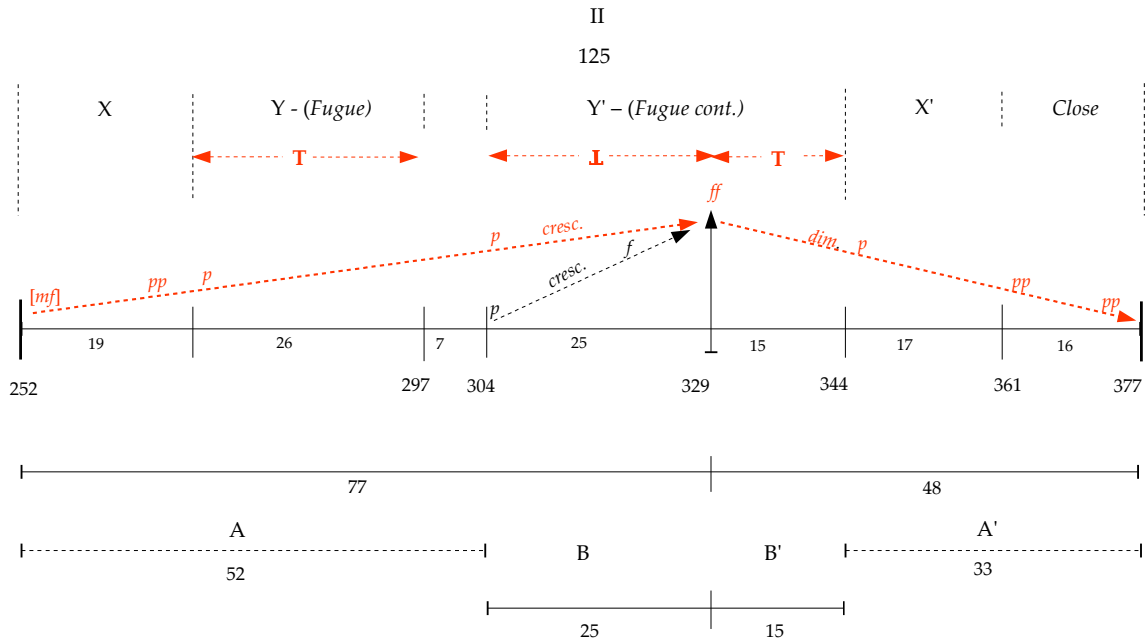
3 a.



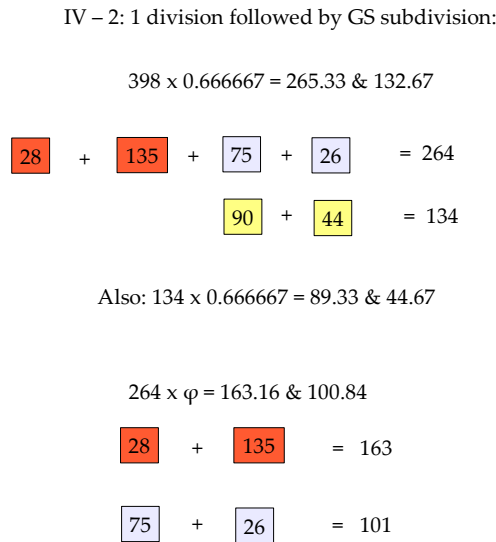
3 b.



4.



6.



647: 398 = G S \pm 1.15 bars
0.619139 = φ + 0.001105

92: 58 = G S \pm 0.71 bars
0.613333 = φ - 0.004701

67: 34 = 2: 1 \pm 0.33 bars
0.663366 = 2: 1 - 0.003301

106: 65 = G S \pm 0.32 bars
0.619883 = φ + 0.001849

106: 65 = G S \pm 0.32 bars
0.619883 = φ + 0.001849

264: 134 = 2: 1 \pm 1.33 bars
0.663317 = 2: 1 - 0.003350

90: 44 = 2: 1 \pm 0.67 bars
0.671642 = 2: 1 + 0.004975

163: 101 = G S \pm 0.16 bars
0.617424 = φ - 0.000610

77: 48 = G S \pm 0.25 bars
0.616000 = φ - 0.002034

52: 33 = G S \pm 0.53 bars
0.611765 = φ - 0.006269

25: 15 = G S \pm 0.28 bars
0.625000 = φ + 0.006966

Figure 11.4 Mendelssohn: String Quartet no 2 in A minor Op. 13 – (1827):

- Axis in bars indicating the basic structure of each movement.
- Primary (overall) GS L: S division.
- 3 a. Movt I illustrating the single GS division made between the opening *Adagio* + *Exposition* and the *Development*. 3 b. The total 251 bars have been initially divided into two equal parts and then subdivided and rearranged to make up the initial GS division and the closing 2: 1 proportion, (the latter is colour-coded yellow).
- Movt II follows a CGSP based on a two-member GS hierarchy. At the common GS point (bar line 329) the fugal subject is re-introduced, after a lapse of 34 bars, in its original (non-inverted) form. The dynamic shape of the movement is that of a GS ascent structure. T and inverted T refer to the original and inverted fugal subject.
- Movt III shows the single GS division made within the central Y section.
- Movt IV: The initial 398 bars have been proportioned 2: 1, followed by a single GS division. This is followed by irregular subdivision of the components and their re-arrangement. The movement closes with a 2: 1 proportion leading to a repeat of the opening *Adagio* of the Quartet.

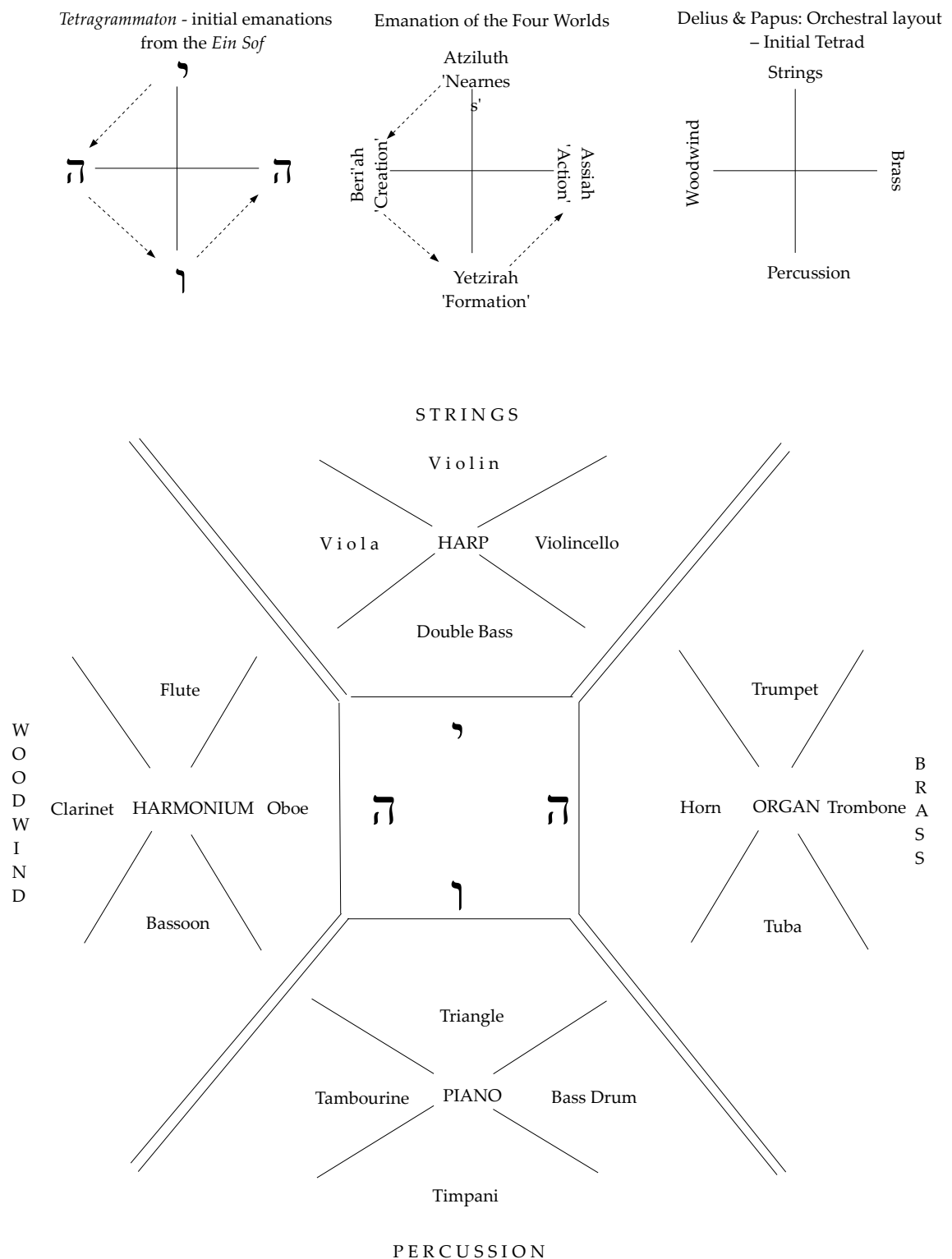


Figure 12.1 Delius & Papus: *Anatomie et Physiologie de l'Orchestre* (1894):

Top left: Primary emanations shown on the *Tetragrammaton*: (reading from the top and anti-clockwise) the Hebrew symbols Yod, He, Vau, He. *Top middle:* Showing the four symbols equated with the *Four Worlds* of Jewish mysticism. *Top right:* Substitution of the four orchestral sections as remote 'vertical correspondents' of the four original *Tetragrammaton* emanations. *Below:* Showing Delius' & Papus' orchestral layout (slightly simplified) which follows the above Kabbalistic principles.

Delius' & Papus' paper is important as it confirms Delius' knowledge at this time of Greek/Jewish ideas of *emanation*, and of Greek/Hermetic notions of *vertical & horizontal correspondence*, supporting the view that his system of proportioning was also influenced by these ideas.

1. *Over the Mountains High* – Voice and Piano (1885).
Text: from B. Bjørnson *Arne* (1858) Chapter 14.
Trans: A. Plesner & S. Rugeley-Powers (1869).

What shall I see if I ever go
Over the mountains high?
Now, I can see but the peaks of snow,
Crowning the cliffs where the pine-trees grow,
Waiting and longing to rise
Nearer the beckoning skies.

Birds, with your chattering, why did ye come
Over the mountains high?
Beyond, in a sunnier land ye could roam,
And nearer to heaven could build your home;
Why have ye come to bring
Longing, without your wing?

Shall I, then, never, never flee
Over the mountains high?
Rocky walls, will ye always be
Prisons until ye are tombs for me?—
Until I lie at your feet
Wrapped in my winding-sheet?

Away! I will away, afar away,
Over the mountains high!
Here, I am sinking lower each day,
Though my Spirit has chosen the loftiest way;
Let her in freedom fly;
Not, beat on the walls and die!

2. *O schneller, mein Roß* – Voice and Piano (1888).
Text: Emanuel Geibel: number 38 in
Lieder als Intermezzo (c. 1834 – 35).

*O schneller, mein Roß, mit Hast, mit Hast,
wie säumig dünkt mich dein Jagen!
In den Wald, meine selige Last,
mein süßes Geheimnis zu tragen!*

*Es liegt ein trunkener Abendschein
rot dämmernd über den Gipfeln,
es jauchzen und wollen fröhlich sein
die Vöglein in allen Wipfeln.*

*O könnt ich steigen mit Jubelschall
wie die Lerch empor aus den Gründen,
und da droben den rosigen Himmeln all
mein Glück verkünden!*

[O faster my steed, with hast, with hast,
How slow your pace seems!
Carry into the wood, my joyful burden,
my cherished secret!

An enrapturing evening glow lies
Reddening over the mountain peaks,
The birds in the tree tops
Extol and wish to share in the joy.

Oh! That I could soar with ecstatic song
Upwards from below, like the lark,
And far above to the rosy firmament
Proclaim my delight!]

3. *Lullaby* – Voice and Piano (1885).
Text: from H. Ibsen Act III of 'The Pretenders' (*Kongs -
Emnerne*) (1863). (Of the total three stanzas only the first
two are shown here)

*Nu løftes Laft og Lofte
Til Stjernehvælven blaa,
Nu flyver lille Haakon
Med Drømmevinger paa.*

*Der er en Stige stille
Fra Jord til Himmel op,
Nu stiger lille Haakon
Med Englene til top.*

[Now roof and rafters reach/To the blue starry vault
[above]/ Now little Haaken soars upwards on the
wings of his dream/ A ladder reaches from Earth to
Heaven above/Now Haakon climbs upwards with
angels to the top]

4. *Ein schöner Stern* – Voice and Piano (c. 1890 – 91).
Text: H. Heine: number 1 in the *Katherina* cycle
(*neue Gedichte* 1844).

*Ein schöner Stern geht auf in meiner Nacht,
Ein Stern, der süßen Trost herniederlacht
Und neues Leben mir verspricht –
O, lüge nicht!*

*Gleichwie das Meer dem Mond entgegenschwillt,
So fluthet meine Seele, froh und wild,
Empor zu deinem holden Licht –
O, lüge nich*

[A lovely star ascends in my night
A star beaming down gentle consolation
And pledging a new life for me -
O deceive me not!

As the sea surges upwards to the moon,
So my soul streams, joyful and wild
Upwards towards your radiant light
O deceive me not!]

5. *Nuages* – Voice and Piano (1893).
Text: Jean Richepin: *Miarka – La Fille
à l’Ourse* (Book 4).

*Nuages, nuages, que vous êtes loin!
Nuages, nuages, que je suis las!
Et sur vos seins, à la peau blanche,
Je voudrais tant me reposer!*

*Nuages, nuages, que je vous aime!
Nuages, nuages, que vous êtes beaux!
Pour qui donc mettez-vous ces robes
De satin vert, de velours rose?*

[Clouds, clouds, how far away you are!/Clouds, clouds how I am exhausted/
and on the white skin of your bosom/ I long to rest.

Clouds, clouds, how I adore you/Clouds, clouds, how splendid you look!/
For whom then do you garb yourselves/ in green satin, in rosy velvet?]

6. *Le ciel est, par-dessus le toit* – Voice and Piano (c. 1895).
Text: from Verlaine *Sagesse* (1881).

*Le ciel est, par-dessus le toit,
Si bleu, si calme !
Un arbre, par-dessus le toit,
Berce sa palme.*

*La cloche, dans le ciel qu’on voit,
Doucement tinte.
Un oiseau sur l’arbre qu’on voit
Chante sa plainte.*

[The sky above the roof/is so blue, so calm/A palm above the roof,/waves its
fronds.
The bell, in the sky we see,/softly peals./A bird, in the sky we see,/calls out
forlornly]

[of the complete four verses of this poem set by Delius, only the first two are
shown here]

7. *On Craig Ddu*, – Unaccompanied Part Song S.A.T.T.B.B (1907)
(subtitled by Delius *Bergesstille*/ Mountain Silence).
Text: Arthur William Symons *London Nights* (1892).

The sky through the leaves of the bracken,
Tenderly, pallidly blue,
Nothing but sky as I lie on the mountain-top.
Hark! for the wind as it blew,

Rustling the tufts of my bracken above me,
Brought from below
Into the silence the sound of the water.
Hark! for the oxen low

Sheep are bleating, a dog
Barks, at a farm in the vale:
Blue, through the bracken, softly enveloping,
Silence, a veil.

8. *A Mass of Life* (1904 – 05) – S, A,T & Baritone soloists, Double
Chorus and Large Orchestra). Part I , Mvt. I bars 46 – 70.
Text: Nietzsche *Also sprach Zarathustra* III (1884)
Von alten und neuen Tafeln § 30.

– bereit zu mir selber und zu meinem verborgensten Willen: ein Bogen
brünstig nach seinem Pfeile, ein Pfeil brünstig nach seinem Sterne: –

– ein Stern bereit und reif in seinem Mittage, glühend, durchbohrt
selig vor vernichtenden Sonnen-Pfeilen: –

– eine Sonne selber und ein unerbittlicher Sonnen-Wille, zum
Vernichten bereit im Siegen!

[prepared for myself alone and for my secret will: a bow
yearning for its arrow, an arrow yearning for its star:
a star ready and fit in its midday, glowing, pierced by
annihilating sun arrows:
a sun itself and an inexorable sun-will ready for
annihilation in victory].

9. *A Mass of Life* (1904 – 05) *ibid.* Part II, Mvt. I bars 835 – 857
Text: Nietzsche *Also sprach Zarathustra* II (1883) *Vom Gesindel.*

***Ein Sommer im Höchsten mit kalten Quellen und seliger Stille:
oh kommt, meine Freunde, dass die Stille noch seliger werde!
Denn diess ist unsre Höhe und unsre Heimat:*** [zu hoch und steil
wohnen wir hier allen Unreinen und ihrem Durste. Werft nur eure
reinen Augen in den Born meiner Lust, ihr Freunde! Wie sollte er darob
trübe werden! *Entgegenlachen soll er euch mit seiner Reinheit.
Auf dem Baume Zukunft bauen wir unser Nest; Adler sollen uns
Einsamen Speise bringen in ihren Schnäbeln!*
*Wahrlich, keine Speise, an der Unsaubere mitessen dürften! Feuer würden
sie zu fressen wäñnen und sich die Mäuler verbrennen!*
*Wahrlich, keine Heimstätten halten wir hier bereit für Unsaubere! Eishöhle
würde ihren Leibern unser Glück heissen und ihren Geistern!*
Und wie starke Winde wollen wir über ihnen leben,] ***Nachbarn den Adlern,
Nachbarn dem Schnee, Nachbarn der Sonne:*** [also leben starke Winde.]

[*Passage in bold italics above:*
A summer in the highest places, with cold springs and a serene stillness:
Oh! Come my friends, that the stillness may grow ever more silent!
For these are our heights and our home [. . . .]
Neighbours to the eagles, neighbours to the snows and
neighbours to the sun!]

10. *Songs of Farewell* (1920-21 and 1929-30). Double chorus and orchestra Mvt III.
Text: Whitman *Leaves of Grass: Passage to India* (1871) lines 233 – 243 were set
but lines 244 – 246 are also shown. 'Struck through' text indicates differences
between the original Whitman and the Delius setting.

~~**Passage to more than India!**~~ **Passage to you!**
O secret of the earth and sky!
Of you O waters of the sea! O winding creeks and rivers!
Of you O woods and fields! of you strong mountains of my land!
Of you O prairies! of you gray rocks!
O morning red! O clouds! O rain and snows!
O day and night, passage to you!

O sun and moon and all you stars! Sirius and Jupiter!
Passage to you!
Passage, immediate passage! the blood burns in my veins!
Away O soul! hoist instantly the anchor!
~~Cut the hawsers—haul out—shake out every sail!~~
~~Have we not stood here like trees in the ground long enough?~~
~~Have we not grovel'd here long enough, eating and drinking like mere brutes?~~
~~Have we not darken'd and dazed ourselves with books long enough?~~

11. *Idyll* (1932). Soprano, baritone & orchestra. Text compiled from
miscellaneous titled sections (indicated in bold face) in Whitman's *Leaves of*
Grass. (From bar 171 of the orchestral score):

We Two, How Long We were Fool'd (lines 1 – 3):
We Two, How Long We were Fool'd
Now transmuted, we swiftly escape as Nature escapes,
We are Nature, long have we been absent, but now we return,
Among the Multitude (line 5):
Ah ~~lover~~ love and perfect equal
Scented Herbage of My Breast (line 13):
~~*For*~~ *how calm, how solemn it grows to ascend to the atmosphere of lovers*
Fast Anchor'd Eternal O Love! (line 5):
I ascend, I float in the regions of your love O man
Proto-Leaf (1860) (line 281):
O power, [and] liberty, ~~eternity~~ at last!
The Sleepers: (line 48):
Double yourself and receive me darkness.
A Glimpse (line 5):
~~*There*~~ *we two, content, happy in being together*
A Clear Midnight (lines 1, 3 and 4):
This is thy hour O Soul, thy free flight into the wordless
Thee fully forth emerging, silent, gazing, pondering the themes thou
lovest best
Night, sleep, death and the stars.
One Hour to Madness and Joy (line 11):
O to speed where there is space enough and air enough at last!
We Two, How Long We were Fool'd (line 11):
We are two ~~predatory~~ hawks, we soar above and look down
From Pent-up Aching Rivers (line 36):
What is all else to us?
We Two, How Long We were Fool'd (line 19):
We have voided all but freedom and all but our own joy.

12. *Hochgebirgsleben* – Voice and Piano (1888).
Text: Henrik Ibsen: *Høyfjellsliv* (1859)
German Trans: Ludwig Passarge)

Nun ruht der Sommerabend lind
Auf jedem tiefen Thal;
Hier oben aber weht der Wind
Um Wände hoch und kahl.

Da wallen Nebel wie ein See,
Darin es kocht und braut,
Und hüllen uns den Gletscherschnee,
Der eben noch von sonn'ger Höh'
So glänzend niederschaut'.

Doch über diesem Nebelmeer
Steigt's wie ein Gedicht:
Unzähl'ge Inseln, hoch und her,
Glühend im Sonnenlicht.
Der Aar durchsegelt dieses reich,
Wie auf dem Meer ein Schiff;
Dahinter steh'n die Berge bleich;
Dem drohn'den Zauberheere gleich,
Auf einem Felsenriff.

[Now the tranquil summer evening rests gently on every
deep valley/ But here above, the wind rages around lofty
and exposed rock-faces.

And mist surges like a lake/ seething and swirling within,/
And hides from us the glacial snows/ Which even yet
from sunny heights/ look down, gleaming.

And above this sea of mist,/ There climb as if in a vision/
Illimitable peaks, shimmering in the sunlight,
An eagle soaring over his domain like a ship over the waves,
And yonder, pale mountains which
In magical array
Stand over all.]

13.
Paa Vidderne [On the Heights] Melodrama – Reciter and Orchestra (1888)
Text: Henrik Ibsen: *Paa Vidderne* (1859/60)

[see accompanying chapter].

14. *Der Wanderer* Voice and Piano (c. 1898)
Text: Friederich Nietzsche: *Die fröhliche Wissenschaft*.

“Kein Pfad mehr” Abgrund rings und Todtenstille!” —
So wolltest du's! Vom Pfade wich dein Wille!
Nun, Wanderer, gilt's! Nun blicke kalt und klar!
Verloren bist du, glaubst du — an Gefahr.

[No more pathway! An abyss all around and deathly silence!
Just as you wished! Your will strayed from the pathway!
Now take stock wanderer! Take a clear cold look!
If you think about any danger – You're lost !]

15. *Der Wanderer und sein Schatten* Voice and Piano (c. 1898)
Text: Friederich Nietzsche: *Menschliches Allzumenschliches*
– Ein Buch für freie Geister.

Nicht mehr zurück? Und nicht hinan?
Auch für die Gemse keine Bahn?
So wart' ich hier und fasse fest,
Was Aug' und Hand mich fassen läßt!
Fünf Fuß breit Erde, Morgenroth,
und unter mir — Welt, Mensch und Tod!

[No way downwards? And none up?
No path even for the chamois?
So I wait here and cling firmly,
Onto anything my eye and hand allow!
Five feet of earth, and dawn,
and under me – the world, humans and death!]

16.
Requiem – Soloists, Choir & Orchestra (1914)+
Text: based on excerpts from Nietzsche and Ecclesiastes
From cue 30 HPS775:

Ich preise den Mann, der einsam stirbt und ohne zu klagen
Sein Geist wird wie auf einem Berge sein,
der sich einem Throne gleich aus der Ebene hebt,
die weitet sich still zu seinen Füßen.

[I praise the man who dies alone without complaint
His spirit will be as on a mountain,
which rises like a throne above the plains
Stretching out silently below]

Figure 13.1 Selected texts from Delius' vocal compositions written between 1885 and 1932 and demonstrating the attributes of *ascentionism* or of a *psychologie ascensionnelle*. Note that in examples 1 –11 the authors express a desire to ascend often above or beyond earthly limits (e.g. towards the Sun or into stellar regions), whilst in examples 12 – 16, the desired ascent is limited to physical (or metaphorical) mountains:
1. *Over the Mountains High* (1885) 2. *O schneller, mein Roß* (1888) 3. *Lullaby* (1889) 4. *Ein schöner Stern* (c. 1890 – 91) 5. *Nuages* (1893) 6. *Le ciel est, par-dessus le toit* – (c. 1895) 7. *On Craig Ddu* (1907)
8. & 9. *A Mass of Life* (1904 – 05) 10. *Songs of Farewell* (1920 – 21 and 1929 – 30) 11. *Idyll* (1932) 12. *Hochgebirgsleben* (1888) 13. *Paa Vidderne* (1888) 14. *Der Wanderer* (c. 1898)
15. *Der Wanderer und sein Schatten* (c. 1898). 16. *Requiem* (1914). Line numbers in the Whitman extracts follow those in Whitman, W., & Bradley, S. *et al.* (1980). For further discussion *see* the text of Chapter 13 .

1.1 Over the Mountains High (1885)
(Voice and Piano)

Bars 4 - 5 piano (cf. bars 27 - 28).

1.2 Paa Vidderne (1888)

Bars 335 - 336.

1.3 Paa Vidderne (1888)

Bar 14

Violins I Bar 37

1.4 Paa Vidderne (1888)

Bars 419 - 420

1.5 On the Mountains (1891/2)

Bars 412 - 415

1.6 Over the Hills and Far Away (1897)

Bars 104 - 105 cf. bars 74 - 75

2.1 Hochgebirgsleben (1888) - voice and piano

Bars 17 - 20 (cf. bars 29 - 32): piano (voice tacit.)

2.2 Paa Vidderne (1888)

Bars 422 - 423

2.3 Paa Vidderne (1888)

Bars 426 - 427

2.4 Paa Vidderne (1888)

Bars 433 - 435

Figure 13.2 continued/

2.5

A Village Romeo and Juliet (1900 - 1901) Scene III

Clarinet, Piccolo (8va)

Horns I, II

Horns III, IV

Vlms. I

Vc. & D.B.

Bars 577 - 581 (HPS no. 885 p. 40)

2.6

The Song of the High Hills (1911)

Horns I-VI

Trumpets I-III

Violins I, II

Violas, Cellos

Bars 404 - 408 (cf. bars 72 - 75).

3.0

Over the Hills and Far Away (1897)

Andante molto tranquillo

Horn II

Vlms. I

Vlms. II

Violas

Bars 1 - 10

Figure 13.2 Recurring motifs in Delius works which symbolize mountain heights etc. :

1. Instances of the 'wilderness motif'* (numbers 1.1 – 1.6) which occurs in works written between 1885 and 1897. Note that the versions of this motif using an ascending triplet configuration first appeared in *Paa Vidderne* (1888) – see no. 1.4 above, and which arise from the frequent use of this triplet configuration in motifs found earlier in this work (e.g. 1.3).
2. Examples (2.1 – 2.6) of a second recurrent motif imitating mountain calls and appearing in works composed between 1888 and 1911.*
3. The opening bars of *Over the Hills and Far Away* (1897) containing two motifs (bars 1 – 2, strings, and bars 7 – 8, horn solo) which reappear in Part II, Movt. II of *A Mass of Life*, which also depicts mountain heights.

* For further discussion see Andrew Boyle (1984) Chapter 1 .

1.



2.



3.



Plate 14.1

1. Charles F. Keary (undated photograph)
2. *Portrait of C F Keary* by Rupert C. Wulsten Bunny – Paris c. 1891.
3. Jutta Bell (Jutta Bell-Ranske) at the age of about 57 (from a newspaper photograph taken in 1917).

Figure 1.1	Positions of φ		4.7	<i>Irmelin</i> – Act III		7.27	<i>Songs of Farewell</i> – Movement II
1.2	<i>Two Pieces for Small Orchestra</i>		4.8	<i>Irmelin</i> – Act III scene II		7.28	<i>Songs of Farewell</i> – Movement III
			4.9	<i>Irmelin</i> – Act III scene II (cont.)		7.29	<i>Songs of Farewell</i> – Movement V
2.1	Type I GS Proportioning and Type I Pattern		4.10	<i>Irmelin</i> – thematic and motivic sources	Table	7.2	<i>Songs of Farewell</i> – Movt – omission of 1 bar
2.2	The GS Symmetrical Pattern and Ascent Formation		4.11	<i>Irmelin</i> – thematic and motivic sources (cont.)			
2.3	Pairing of GS Complements		4.12	<i>Irmelin</i> -thematic and motivic sources (cont.)		8.1	<i>Violin Concerto</i>
2.4	Formation of the Complete GS Pattern		4.13	<i>Irmelin</i> -thematic and motivic sources (cont.)			
2.5	Formation of the Complete 2.1 Pattern		4.14	<i>Irmelin</i> – thematic transformations of Irmelin's theme		9.1	Techniques of Proportioning: Sérusier & Filiger
2.6	The GS Set or GS Hierarchy		4.15	<i>Irmelin</i> – miscellaneous additional themes		9.2	Séurat: Double Golden Rectangles
2.7	The Switched Complete GS Pattern		4.16	<i>Irmelin</i> – music examples Act I section A'		9.3	Sérusier: Golden Rectangle Format
2.8	Redistribution and Re-ordering the Products of GS Subdivision		4.17	<i>Irmelin</i> - music examples Act III		9.4	Sérusier: Double Golden Rectangle Format
			4.18	Alchemical Schemes: <i>Irmelin</i> and <i>The Magic Fountian</i>		9.5	Sérusier: Plots of Estimates of φ
2.9.1	<i>Paa Vidderne</i> – Movements I – IX	Plate	4.1	Barchusen - <i>Elementa Chemiae</i>	Plate	9.1	Séurat : Works Using Golden Section Strategies
2.9.2	<i>Paa Vidderne</i> – Movement IV		4.2	de Lintaut – <i>l'Aurore</i>		9.2	Sérusier: Double Golden Rectangle - Early Works
2.9.3	<i>Paa Vidderne</i> – Movement VI		4.3	Trismosin – <i>Splendor Solis</i> – Plate 21		9.3	Sérusier: Horizontal Lines arising from GS points
2.9.4a	<i>Paa Vidderne</i> – Movement VIII		4.4	Trismosin – <i>Splendor Solis</i> – Plate 22		9.4	Sérusier: Ascending/Descending Lines or Curves
2.9.4b	<i>Paa Vidderne</i> – Movement VIII		4.5	<i>Rosarium philosophorum</i> – Plate 8		9.5	Sérusier: <i>Le Pêcheur à la Laïta</i>
2.9.5	<i>Paa Vidderne</i> – Movement IX		4.6	<i>Rosarium philosophorum</i> – Plate 9		9.6	Sérusier: <i>La Moisson</i>
2.10	<i>String Quartet</i> (1888) Movements III & IV		4.7	<i>Figulus</i> – <i>Thesaurinella olympica</i>		9.7	Sérusier: <i>Jeunes Lavandières</i>
2.11	<i>O schneller mein Roß (Plus vite mon Cheval)</i>		4.8	<i>Mylius</i> – <i>Philosophia reformatata</i> – Plate 7		9.8	Sérusier: <i>Le Ramasseur de Goémon</i>
2.12.1	<i>Suite for Violin & Orchestra</i> – Movements I – IV		4.9	<i>Mylius</i> – <i>Philosophia reformatata</i> – Plate 19		9.9	Sérusier: <i>Jeune Bretonne à la Faucille</i>
2.12.2	<i>Suite for Violin & Orchestra</i> – Movement I	Figure	5.1	<i>The Magic Fountain</i> – Acts I – III		9.10	Sérusier: <i>La Barrière</i>
2.13	<i>Sakuntala</i>		5.2	<i>The Magic Fountain</i> – Acts I		9.11	Sérusier: Vertical Subdivision by GS
2.14	<i>Idylle de Printemps</i>		5.3	<i>The Magic Fountain</i> – Act II		9.12	Verkade: Works Employing GS Techniques
2.15.1	<i>Trois Morceaux Caractéristiques</i>		5.4	<i>The Magic Fountain</i> – Act III		9.13	Filiger: <i>Paysage de Pouldu</i>
2.15.2	<i>Trois Morceaux Caractéristiques</i> Movements I and III						Verkade: <i>Paysanne de St Nolff</i>
2.16	<i>Three Small Tone Poems</i> – <i>Summer Evening</i>		7.1	<i>Sea Drift</i>		9.14	Filiger: Works Using Golden Section Strategies
2.17.1	<i>Three Songs to Words by Shelly</i>		7.2	Text of <i>Sea Drift</i>	Figure	10.1	Debussy – <i>Printemps Suite Symphonique</i>
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			7.4	<i>A Mass of Life</i> – Part I – Movements I + II, V		10.3	Debussy – <i>La Damoselle élue</i>
3.1	<i>Pensées Mélodieuses</i> No 2		7.5	<i>A Mass of Life</i> – Part I – Movements III – IV		10.4	Debussy – <i>Ariettes oubliées</i>
3..2.1	<i>Hiawatha</i> – Tone Poem for Orchestra		7.6	<i>A Mass of Life</i> – Part II – Movements I + II, V + VI		10.5	Debussy – <i>Cinq Poèmes de Charles Baudelaire</i>
3.2.2	<i>Hiawatha</i> – Tone Poem for Orchestra		7.7	<i>Mitternachtslied Zarathustras</i>		10.6	Debussy – <i>Fantaisie pour Piano et Orchestre</i>
3.3.1	<i>Florida Suite</i> – Movements I – IV (bars)		7.8	<i>A Mass of Life</i> – Part II – Movements III and IV		10.7	Debussy – <i>Fêtes Galantes I</i>
3.3.2	<i>Florida Suite</i> – Movements I – IV (crotchets)		7.9	<i>A Mass of Life</i> – Music examples I		10.8	Debussy – <i>Prélude à l'Après-Midi d'un Faune</i>
3.3.3	<i>Florida Suite</i> – Movements I (crotchets)		7.10	<i>A Mass of Life</i> – Music examples II		10.9	Debussy – <i>Prose lyriques</i>
3.3.4	<i>Florida Suite</i> – Movements III (crotchets)		7.11	<i>Fennimore & Gerda</i>		10.10	Debussy – <i>Nocturnes</i>
3.3.5	<i>Florida Suite</i> – Movements II and IV (crotchets)		7.12	<i>Fennimore & Gerda</i>		10.11	Debussy – <i>Images I</i>
3.4.1	<i>Petites Suites</i> – (I and II combined)		7.13	<i>Fennimore & Gerda</i>		10.12	Debussy – <i>La Mer</i>
3.4.2	<i>Petite Suite</i> I		7.14	<i>The Song of the High Hills</i> (bars)		10.13	Debussy – <i>Suite Bergamasque</i>
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3.5.1	<i>Five/Seven Songs from the Norwegian</i>		7.16	<i>The Song of the High Hills</i> – Music Examples I		11.1	Mendelssohn – <i>Symphony No 3 in A minor</i>
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